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30TH SOPHIA GRAY
MEMORIAL
LECTURE AND
EXHIBITION:
PROF. 'ORA JOUBERT.

BOUKUNDE AT UP:
CELEBRATING
75 YEARS OF
EDUCATIONAL
EXCELLENCE

OVERVIEW:
EARTHWORLD
ARCHITECTS
AND INTERIORS

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FAIR PLAY?

PROFESSOR
PAUL KOTZE,
Editor

The survey on fees, commissioned by the SA Institute of Architects, makes for a sobering read. Here, some evidence is presented to support what so many professional architects have been talking about for a long time. The concerns, so well described and defined for the SAIA by Mr Simmy Peerutin, should also be placed against a larger national backdrop. One should ask if it is only the professional architects who are exposed to this kind of pinch, or does it also extend to the other professionals operating in the built environment? Or, does this kind of pressure on fees also apply to other professions such as legal or medical professions? A broader understanding of this whole scenario might be able to point out if the architectural profession finds itself in a unique position or not, as far as this issue is concerned. It might be good to know if this pressure on professional fees also follows the ebb and flow of the economic cycles. If such data can be found, it would enable the profession to understand its own situation more clearly and to prepare a better defence against this kind of condition.

**THE FOCUS SHOULD THEN
ALSO BE ON THE CREATION
OF USEFUL AMENITY OVER
THE LONGER TERM, GOOD
FOR MANY GENERATIONS
TO COME**

The relationship between the architect, other built environment professionals, contractors and their clients is usually a longer term one. It mostly leads to a physical “product” often used by people who did not pay for it directly. The focus should then also be on the creation of useful amenity over the longer term, good for many generations to come. The users will hardly ever meet or know about the creators, funders and producers of buildings. Herein lies the ultimate objective of most buildings: to create long-term physical, monetary and cultural value. Why would these long-term goals be jeopardised by limiting the quality and due process of professional services in the production of the built environment?

Surely this is then placing the longer-term benefits of proper professional services at risk for short-term gain! How would a crop of crumbling buildings, due to these imposed limitations as well as the resultant sub-standard built quality, be explained to a future generation? This is, in effect then, stealing from our children.

While considering the world that will be inherited by the next generation, one would also need to think about the young architectural graduates and professionals who enter the system every year. The cost of their education is mostly carried by the South African taxpayer. If they cannot find a future where they can apply their talents and professional knowledge inside the country, they will find it outside — as so many have already done. Here, yet again, the current generation would need to account for its short-sighted behaviour when its actions deplete the most valuable resource of all mankind, namely its brainpower and expertise within local space.

The architect and everybody else in the broad and complex process of producing the built environment has a long-term view over what they produce. Architecture remains also one of the truest measures of humanity’s achievements and failures. How do the client bodies, be they public or private, give an account of their actions when the process fails due to the short-term goal of financially pressing everybody involved beyond what is considered to be a fair reward for hard-gained and rare expertise as well as risk? This pressure has only one result and that means that less time can be spent on every aspect of getting buildings built. But the opposite is true — buildings need time to be carefully contemplated and “nursed” into reality. If this time is not available, the risk simply escalates and somebody will need to pay to sort out anything that goes wrong. So where is the economy in this scenario?

How do we tell the next generation that all of this is considered to be fair play? ■

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**10 YEAR
WARRANTY**

BENCHMARKING AND FEES SURVEY 2019

Time for the benchmarking and fees survey to ascertain the state of the profession.

By: Simmy Peerutin, Chair SAIA Practice Committee

All SAIA practices are invited and encouraged to prepare for and participate in the 2019 Benchmarking and Fees survey — available online from 30 January to 6 March. SAIA plans on repeating this study into the state of the profession on an annual basis.

The findings of the first survey were presented at the AZA2018 Conference in May 2018. Simmy Peerutin, Chair SAIA's Practice committee, made several presentations throughout the country thereafter. In August, the final reports were made available to members online via the SAIA member portal.

The findings do not make encouraging reading. Below are some brief statistics from and thoughts on the 2018 survey:

- Extrapolating the number and value of projects from the survey, it is estimated that SAIA practices handle 11 570 projects with a total value of R12.7-billion in fees. 41% are private individual projects, but they make up only 9% of value.
- 49% of practices consist of between one and three people; they earn 11% of the total fees.
- The median turnover for one-person practices is R471 000 annually. The average is R785 000 annually.
- The average profit margin is 12% and one in five practices reported a loss. A similar recent survey in the UK showed an average profit margin of 17% — over 40% higher.
- The low turnover and low margins explain somewhat the low investment in IT and training — average totals of 6% and 2% of total turnover respectively.
- 69% of practices undertook work at risk and of that, 55% of projects worked on at risk led to fee-earning work.
- The average fee percentages agreed with clients are well below even the 2011 SACAP Guideline Fee Scales.
- The last two points explain to a large extent the low-profit margins and the low investment in training and IT.
- Transformation is slow with 61% of all staff being white and 84% of all principals, partners and directors being white. Regarding women, the percentages are 41 and 21 respectively. But, with salaries as low as they are, and study times as long as they are, this is not an attractive profession. *You gotta love it to do it!*

However, there are a number of key areas where architects could improve to become better businesses:

- Only 35% reported having a business plan and only 63% reported having a cashflow forecast. How do companies run without at least a cash flow forecast?
- Only 46% of practices track project costs, although most of the larger practices do. While 62% of practices say they use timesheets, only 21% say they review them regularly. How does one know whether the fees one is charging are adequate if tracking is not taking place?
- Only 17% of practices have some form of quality management system; due to the much higher percentage of large and macro practices having one. This does not have to be complex. Developing a series of checklists for critical activities will help enormously in cutting down errors and omissions.
- Only 36% have a skills development plan, the majority again made up of large and macro practices. While it is a requirement when over a certain size, it is worth doing this properly — identifying shortfalls in the knowledge base of one's practice and having a plan to remedy that.

The Institute needs to track any trends that may emerge regarding the state of the profession, especially the state of SAIA practices, as we go forward during these turbulent and challenging economic times. ■

'ORA JOUBERT: A CAREER ON DISPLAY

A review of the 30th Sophia Gray memorial lecture exhibition.

By Wanda Verster, Department of Architecture, UFS



1

The 30th Sophia Gray memorial lecture was presented by Prof. 'Ora Joubert on Thursday 30 August at the University of the Free State. The accompanying exhibition was hosted by the Oliewenhuis Art Museum. The exhibit is a reflection of Joubert's lecture, *La Promenade Architecturale*. Joubert highlighted significant moments of her career as architect and academic by referring to selected buildings and projects. This promenade was coloured by the anecdotes of the personal relationships with colleagues, friends, students, clients and project teams that informed the designs. The concomitant exhibition reflects the experimental, exuberant and engaged quality of her designs and writing.

'Ora Joubert's education is also a form of promenade, starting at the University of Pretoria, where she obtained her BArch (*cum laude*). She went on to obtain an MSc at the Pennsylvania State University, where she studied the compilation of architecture curricula. To complete her education journey, Joubert returned to South Africa where she completed her PhD at the University of KwaZulu-Natal with a study engaged in the intersection of modern art and modern architecture. The journeys of her career are presented



2

through a series of sketches. The selection of travel sketches is illustrative of her design methods and passionate involvement in architectural spaces. The sketches are frantic and excited, but also assembled as a relaxed composition, not dissimilar to how ideas present themselves in the mind of the architect.

Joubert started her practising career as an in-house architect for the Get Ahead Foundation and has been in private practice since 1990. Highlights of her residential designs, referencing local building methods and materials — especially the ubiquitous gum poles — form the focus of the exhibition. The international reach of her designs is also seen in the publications that form a narrative running parallel to the model exhibition.

On exhibition were relief models, produced by the students of the Nelson Mandela Metropolitan University, that revealed the careful spatial intersections of her designs. The experimental models exhibited by students of the University of the Free State, where she also served

1 View of exhibit models and project information of Professor Joubert's Eco Farm design.

2 A section model showing the spatial complexity in Professor Joubert's design.

as departmental head between 2001 and 2004, revealed her curiosity, support of alternative thinking, tectonic insight and engagement with the creative process. Her care and support of the creative skills of students was also revealed in the fashion parade inspired by her buildings by TUT students that concluded the lecture.

The two tomes convened and edited by Joubert form the bookends of the exhibition as one enters. *10+years 100+ buildings Architecture in a democratic South Africa* (or the blue book) and the newly published *10+years 100+ projects Architecture in a democratic South Africa* (likely to be known soon as the yellow book) are presented as the pinnacle of her publishing career. Visitors to the exhibition are invited to page through the curated collection of work produced by excellent South African architects, as well as the innovative, meritorious dissertations of architecture students in their final year of study. Articles and other publications related to her work are presented as a careful narrative. This section of the exhibition asks for close engagement, inviting the viewer to engage with her work closely and carefully, while focussing on the details

'Ora Joubert is difficult to contain or describe in a single word, a fact we were reminded of in the word of thanks by Katlego Nkomo of the UFS Architecture Student Association (the A5). This exhibition is a small sample of a long, complex and engaged career where the key factor revealed to us is how deeply Joubert cares about the architecture produced in this country and how passionately she continues to make a contribution to the debate about aspects of the profession in South Africa. ■



3 View of the suspended project posters and model exhibit. 4 Images of residential projects suspended above models.

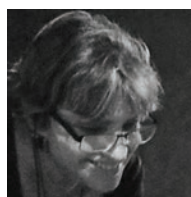
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PROF ARTHUR BARKER joined the Department of Architecture at the University of Pretoria in 2010, after co-ordinating the BTech (Applied Design) programme for 13 years at the Cape Peninsula University of Technology (CPUT). He currently co-ordinates and lectures in the Professional Master's programme while teaching first-year construction.



WANDA VERSTER is a research assistant, part-time lecturer and PhD candidate at the Department of Architecture at the University of the Free State, Bloemfontein. She also holds a BA Hons in Visual Culture cum laude from the UFS. She has a small solo practice and is especially interested in architectural theory linked to threshold spaces.



PROF 'ORA JOUBERT has lectured at various South African and foreign universities. She was previously head of the Department of Architecture at the University of the Free State and head at the Department of Architecture, Landscape and Interior at the University of Pretoria. Her work has been published both locally and internationally.



WALTER PETERS is Emeritus Professor of Architecture and Research Fellow of the University of the Free State. His published doctorate covered the colonial architecture of Namibia. He holds the SA Institute's Medal of Distinction as well as the Writers & Critics Award and was elected 21st Sophia Gray laureate.



HEIN RAUBENHEIMER After obtaining his first degree in architecture, Hein Raubenheimer spent seven years working in Ireland. Since joining the University of the Free State as a full-time lecturer in architecture in 2010, he has provided technical assistance to typology architects and initiated a community service project in earth construction.

ERNST STRUWIG: AN ENTHUSIASTIC AND PASSIONATE ARCHITECT

By: Emeritus Professor Julian Cooke, University of Cape Town

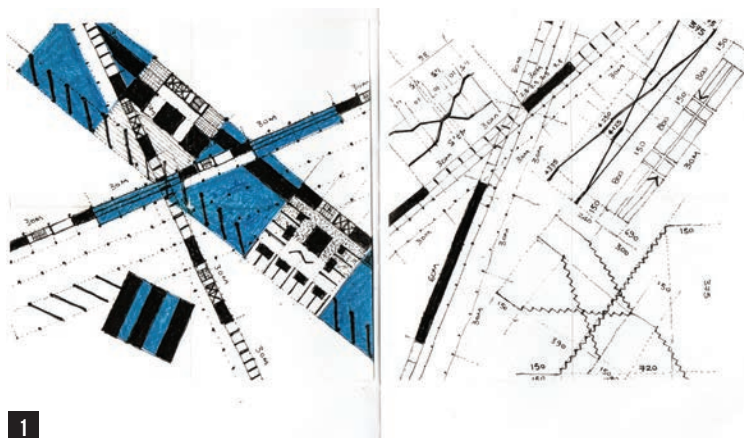
Ernst Struwig died very suddenly of pancreatic cancer on 18 July 2018. His passing was a great shock caused untold sadness for all his friends and family, especially his partner, (Dr) Magda Minguzzi. However, in a sense, the manner of his passing, its haste and intensity, was unsurprising, because he was a vigorous and intense person — no slow fading for one made of such volatile matter. His engagement with architecture was an absolute passion. I'm sure all who knew him will have memories similar to mine, when I met him again after many years and encountered once more that vivid focus and enthusiasm for the discipline. He had a very wide knowledge of architecture and could discuss anything from Alberti's details of Palazzo Rucellai to Le Corbusier's notion of a magic box to the plan of Eaton's Andersen house plan in Pretoria. This was combined with a phenomenal spatial memory — he had a multitude of plans, like tunes, in his head, and after visiting a place only once could reproduce its plan and section quite accurately.

It was this mixture of enthusiasm and capacity that took him in the 1980s to the then centre of the European

architectural discourse at the Istituto Universitario d'Architettura di Venezia (IUAV), which was constructed around leaders such as Manfredo Tafuri, Aldo Rossi and Carlo Scarpa. He won an Italian government bursary to register for some courses there and remained linked with the institution for the next 25 years. His focus, conceptual ability and brilliant drawings clearly caught their attention. He assisted Michael Carapetian for a number of years in the Zenobio Institute, a "laboratory for the urban landscape" and was employed in the design studio of the architectural school from 1999 to 2011. During this time, he participated in a number of studies held by architects such as Eisenman and Hedjuk. He was invited to be part of Daniel Libeskind's Architecture Intermundium Design Programme in Milan and was involved with various international architectural project studies including the winning competition entry for "The Extension to the Berlin Museum with the Jewish Museum".

He worked on a number of competitions over this time, some led by people like Renato Rizzi and Peter Eisenman, and some of his own account. All achieved a measure of success. Meanwhile, he was developing a reputation as a fine conceptual artist and his work was exhibited in Italy in a number of individual shows.

In 2012, he returned to South Africa to take up a post as senior lecturer at the Department of Architecture, Nelson Mandela Metropolitan University. His main task there was to run the first-year design studio. His approach was quite unique in the South African academic scene, but produced outstanding student work, which was put together in an exemplary way as an exhibition that toured the country. His second great innovation at NMMU was to organise two International Workshops of Design, wherein well-known international and local architects led students in projects of great pertinence to the city. The large crowd of students who attended Ernst's memorial service, and a number of the tributes made by some of them, demonstrated clearly his lasting value to them as person and as a teacher. He will be sadly missed, but he will also always remain an inspiration to many of us who have known him. ■



1

1 Drawings by Ernst Struwig.



ARCHITECTURE IN A DEMOCRATIC SOUTH AFRICA

By: Sumayya Vally, Counterspace, Johannesburg

“The critique of ideology should not begin with critiquing reality, but with the critique of our dreams”¹.

‘Ora Joubert’s book, *10years+100projects Architecture in a democratic South Africa*, curates an important collection of architectural works — thesis projects from the last 10 years in South African schools of architecture.

The book forms an important record of what architectural education in the country has had to engage with since democracy — showcasing a range of projects that contend with land ownership, socioeconomic divides and public space access to name a few.

In the 1990s, South Africa embarked on a self-conscious nation-building programme under the general banner of the “Rainbow Nation”. The name represents a summary of the kind of language that was necessary in the early stages of South Africa’s liberation narrative to loosen the grip of racist regimes. Entering the next phase means engaging with structures that lie beneath the veneer of peace, tolerance, freedom, transparency and rights. Any intervention cannot, in this context, simply be a rebranding exercise. The intervention must engage meaningfully with the structures of society.

The works in the book are of particular importance because, at such a critical point in our country’s democracy, it is more important than ever for architectural education, the academy, and the imagination to flourish.

It is very interesting and pertinent that the book is in a similar format and language as its predecessor, *10years+100projects Architecture in a democratic South Africa*, placing the work of the academy and of the imagination on par with built architectural works that have contributed significantly to our built landscape.

Architecture, at its core, has the power to affect the way we live and experience the world; it holds a role in constructing our perceptions and affecting them. Architecture thrives in the social, political and economic order. The realisation of this brings

about better architecture; more honourable and less responsible, less predictable.

Joubert’s book has chosen to foreground the South African architectural academy as at the forefront of the architectural political imagination. There is a great tradition within the histories of architecture that saw many of the architect greats dabbling in fantastical paper architecture for years before actual buildings.

The paperwork is always in progress, generative, never complete, never extremely clear. It throws things into crisis and thereby insinuates, discovers and inspires new things.

What we adore about the architecture of the greats, if one were to ponder over it, is not their buildings, but their ideas about buildings. Without the representation of buildings, the *image*, the *sketch*, in books, in the media, in exhibitions, we would have a very limited understanding of architecture, in fact, one can argue, almost no concept of architecture at all; and indeed be impoverished of greater sense of imagination. Architecture is the overlap of buildings and ideas. There is not one without the other.

Architecture, as a condensed medium (where meanings are at all times multiple), can, through subjective interpretation from a variety of points of view, contribute to the development of such languages. Ultimately, we want to produce graduates who can draw the *real* architecture of our society, and for that, they must draw dreams. This book foregrounds architecture in the academy, and it is my hope that it makes a contribution to expanding and fostering the importance of radical imagination and the flourishing of new types of progressive, transformative academy. ■

FOOTNOTES

¹ Slavoj Žižek. *Trouble in Paradise: From the End of History to the End of Capitalism*.

¹ *10 Years + 100 Projects, Architecture in a Democratic South Africa*. Prof. Ora Joubert, Ed. 2017: Bell-Roberts Publishing ISBN 978-0-6399379-0-8.



CELEBRATING 75 YEARS OF EDUCATIONAL EXCELLENCE

By: Professor Arthur Barker, Department of
Architecture, University of Pretoria

*The University of Pretoria's Department of
Architecture has developed into one of the
world's top architecture and built environment
educational institutions.*



IN 2017, THE QS WORLD UNIVERSITY RANKINGS BY SUBJECT REPORT PLACED THE DEPARTMENT THIRD IN AFRICA, AMONG THE TOP 25 IN THE BRICS COUNTRIES AND, SINCE 2016, IN THE TOP 200 ARCHITECTURE AND BUILT ENVIRONMENT PROGRAMMES IN THE WORLD

On 1 March 2018, the Department of Architecture at the University of Pretoria celebrated its 75th anniversary. The department has grown from humble beginnings in 1931 as an associated department of the University of the Witwatersrand to a fully-fledged and independent Department of Architecture and Quantity Surveying in the Faculty of Mathematics and Science.

It has developed, under a number of headships, into a major player in the School of the Built Environment located in the Faculty of Engineering, Built Environment and Information Technology. In 2017, the QS World University Rankings by Subject report placed the department third in Africa, among the top 25 in the BRICS countries and, since 2016, in the top 200 architecture and built environment programmes in the world.

Academic departments are generally defined by the visions of the universities and faculties in which they reside, the composition of the student body, the skills of full- and part-time staff, and the philosophical and pedagogic directions of programme leaders and heads of department. This is none more so than in this department, fondly known as Boukunde (Building Science). Adriaan Louw Meiring (1904–1979) served as the first head until 1966. His appointment of a small group of like-minded teaching staff — Hellmut Stauch, Norman Eaton, Gordon McIntosh and Robert (Bob) Cole Bowen — fostered the regionalist architectural direction that constitutes the quintessential Pretoria School. Save for a brief Post-Modernist interlude during the 1980s, the three guiding principles highlighted by Prof Dieter Holm (1936—), head from 1986 to 1996, still guide the department's pedagogy. The first is a respect for the landscape, the second, an independence of stylistic ideologies, and the third, a proficiency in building science, an understanding of materials and the evolution of detail. These principles were reinforced in the 1990s with the introduction of an ecosystemic approach to design, inculcated in the curriculum by Prof Roger Fisher (1951—) who served as acting head on a number of occasions. "We think ecosystemically — that is to think of a system as nested, each as part of a larger system, made up of sub-systems and a part of a supra-system [...] Where there is fit between context and design response, there is fitness."¹ All of these influences and directions have been initiated and interpreted, to a larger or lesser extent, by the various heads of department.

The tenure of Alewyn Burger (1933—), from 1964 to 1987, was marked by strong management, effective teaching practices, and the inculcation of a strong studio culture in a larger sociocultural and political

context. From 1996 to 2004, Prof Schalk le Roux (1945—) led the department with his focus on South African architecture through cultural landscape conservation practices, reinforced during the five-year period that Prof Karel Bakker (1956–2014) led the school, until his untimely death in 2014. From 2005 to 2008, Prof 'Ora Joubert (1959—) instilled excellence in design tuition, while reconsidering architectural identity and the synergy of academia, practice and the broader public. In 2015, Prof Chrisna du Plessis (1965—) took over the reins and, with her strong research background in resilience and regenerative practices, has brought the direction of the department full circle, reinforcing its Pretoria School legacy.

Apart from architecture, the character of the curriculum at the department is also enhanced by the unique synergy of subsequent degrees offered in interior architecture and landscape architecture (the only architectural learning site in the country with this combination of academic programmes), as well as three specific research fields that guide the structure of the honours course: Environment Potential, Heritage and Cultural Landscapes and Human Settlements and Urbanism.

An important part of the research endeavour at the department is its architectural archives, established over 50 years ago and currently curated by Johan Swart. It houses close to 80 significant physical and digital collections representing Norman Eaton (1902–1966), Gordon McIntosh (1904–1983), including *zero-hour* originals of 1933, John van de Werke (1904–1980), Philip Nel (1943—), Glen Gallagher (1935–2010), Jan van Wijk (1926–2005), Gustav Schmickl (1903–1977), Herbert Prins (1927—) and Alan Lipman (1925–2013). Staff members have actively pursued sourcing and managing collections and producing research. Notable book publications are the 1998 *Architecture of the Transvaal*, edited by Roger C Fisher, Schalk le Roux and Estelle Maré, and Roger Fisher and Nicholas Clarke's *Architectural Guide: South Africa*, published by DOM Publishers in 2014, and which received a 2015 Gauteng Institute for Architecture (GIfA) Merit Award for Research Documents. Prof du Plessis' 2015 book, *Designing for Hope: pathways to regenerative sustainability*, won an AfriSam Award for Research in Sustainability, while *Eclectic ZA Wilhelmiens: a shared Dutch built heritage in South Africa*, edited by Karel A Bakker, Nicholas J Clarke and Roger C Fisher, received an Award of Excellence from the South African Institute of Architects in 2016. In 2017, another SAIA Award of Excellence was given for NZASM — *Footsteps along the tracks: the identified extant built* >

1 Boukunde entrance. 2 3rd year studio. 3 Atrium. 4 New fire escape to eastern edge.

residue of the Nederlandsche Zuid-Afrikaansche Spoorweg-Maatschappij (1887-1902), researched and written by Nicholas Clarke and Roger Fisher. Numerous articles have been published in journals such as the *South African Journal of Cultural History*, *South African Journal of Art History* and, of course, *Architecture South Africa*, including those on local architects such as Prof Arthur Barker's (1961—) studies on the architecture of Gawie Fagan, Thomashoff + Partners, Marguerite Pienaar (1977—) and earthworld architects and interiors, and Marguerite Pienaar's studies on Norman Eaton.

In 1993, the department celebrated its Golden Jubilee, and an annual architectural students' congress was held on campus with the theme "Place making in Africa", while Prof Bakker curated an alumni exhibition at the Pretoria Art Museum that ran from 7 to 25 July².

The department also has a proud history of graduating PhD students and awarding honorary doctorates. Prof Holm was the first to receive a PhD in Architecture from the department in 1984, followed by the first PhD in Landscape Architecture by Willem van Riet (1942—) in 1988. Over the last seven years, the department has awarded 20 PhDs, including those to current staff members Prof Barker, Dr Carin Combrinck (1968—) and Dr Nico Botes (1968—). The first *Philosophiae Doctor Honoris Causa* in Architecture was bestowed by the department on Amancio (Pancho) Guedes (1925—2015) in 1998. In 2000, Gabriël Theron (Gawie) Fagan (BArch 1952) received the TuksAlumni Board's Laureate Award, while in 2003, a *Philosophiae Doctor Honoris Causa* in Landscape Architecture was conferred on Peter Walker. In the same year, the Chancellor's Medal was awarded to Gawie Fagan while Jan van Wijk (1926—2005) received the TuksAlumni Board's Laureate Award. A number of Medals of Honour for Architecture from the *Suid-Afrikaanse Akademie vir Wetenskap en Kuns* [South African Academy for Science and Arts] have been awarded to department alumni. The first recipient in 1956 was Prof Meiring, followed in 1995

by Samuel Pauw (1936—2016), in 2004, by Daan Kesting (b.1933—), and in 2002, by Prof Schalk le Roux. In 2014, the medal was bestowed on Prof Hans Wegelin (1940—), with Pieter Mathews (1967—) being the 20th recipient in 2018.

Students of the department have received a number of accolades over the years. In 2001, Jaco Booyens (BArch 1996) became the first UP graduate to be awarded the prestigious SAIA biannual Rome scholarship to study at the British School in Rome. Ruann van der Westhuizen's MArch (Prof) thesis, "A public bathhouse" (2009), was one of the final eight winners of the Hunter Douglas Awards in the biannual Archiprix International competition, announced at the ceremony held on 9 June 2011 at the Guggenheim Museum in New York. His project was also nominated as a participant's favourite. In 2011, Calayde Davey, MArch (Prof) 2010 and PhD Environmental Design and Planning, Kansas State University 2015, won the Africa and Middle

East Region's Holcim Next Generation Award for post-graduate students. In 2014, Heidi Boulanger (née Van Eeden), MArch (Prof) 2013 and 2014 Corobrik national winner, took fourth prize in the regional Holcim Awards 2014 Africa Middle East, and in 2017, she won the first prize in the LafargeHolcim Foundation Sustainable Construction Awards in the Africa Middle East Next Generation category. In 2018, she received a grant from the LafargeHolcim Next Generation Awards Lab to pursue her research on integrating production facilities for construction material into rural communities, creating new urban nodes. In April 2018, Renée Minnaar won the Corobrik Architectural Student of the Year first prize, marking the eighth time the department has received this accolade, Braam de Villiers of earthworld architects and interiors being the first from the department in 1995.

CHANGES FOR THE BETTER

The Boukunde building has undergone a revamp during the past year and a half, after initial construction in 1961 (designed by Meiring & Naudé Architects) and substantial alterations and additions in 1973 by Daniël de Beer. The new alterations have been conceptualised by Thomashoff + Partners as "The Boukunde Living Laboratory" with the intention of laying bare the bones of the making of architecture, while fostering social learning spaces and future proofing for the next decades of architectural education. This is one of six strategic priority areas for Prof du Plessis that set the vision for the future of the department. The second is the establishment of the Unit for Urban Citizenship, which will develop the scholarship of civil engagement and participatory development within the context of a complex emergent African urbanism. Thirdly, the department needs to shift to digital space to respond to the needs of industry and the students. A fourth priority area is re-curriculation to deal with the changing nature of the architectural profession. Archive accessibility is the fifth key area involving the digitisation and the improvement of facilities, which is currently being undertaken. The last priority area is the strengthening of international collaboration that has already begun with the department's involvement in local and international research projects, such as with TU Delft, Chalmers University of Technology in Sweden, and Hong Kong Polytechnic University.

The official opening of New Boukunde, together with the publication of a commemorative book to celebrate the 75th anniversary, will take place early in 2019. The publication will be a record of antecedents, foundations, memories, pedagogies and alumni achievements, and will be available for purchase directly from the department. ■

FOOTNOTES

¹ Fisher, R. and Clarke, N.J. 2011. RED in architecture – an ecotropic approach. *Architecture South Africa*. September/October:20.

² <https://www.artefacts.co.za/main/Buildings/articles.php?artid=388> [accessed 17 October 2018]

**IN 1993, THE
DEPARTMENT
CELEBRATED ITS
GOLDEN JUBILEE,
AND AN ANNUAL
ARCHITECTURAL
STUDENTS'
CONGRESS
WAS HELD ON
CAMPUS WITH
THE THEME
"PLACE MAKING
IN AFRICA"**



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LA PROMENADE ARCHITECTURALE – A JOURNEY THROUGH TIME AND SPACE

Architect and academic Professor 'Ora Joubert took the audience on a journey through her career when delivering the 30th Sophia Gray memorial lecture in August 2018.

Foremost, I wish to express my gratitude to my former colleagues from the University of the Free State for this exceptional acknowledgement in the memory of Sophia Gray — the first female South African architect to oversee (on horseback) the construction of multiple churches throughout the northern parts of the country. I also commend this tertiary institution for having sustained this prestigious event over 30 years, a remarkable feat not to be sniffed at.

Sincerely and without feigned modesty, I don't particularly like talking about myself. I would much rather have made use of this auspicious occasion (with "auspicious" being the operative word) to share in the accomplishments of former students, or the creative endeavours of colleagues.

And over the years, there have been interesting topics of conversation, including "From Marx to Modderpoort" (following a trip to Eastern Europe soon after the fall of the Berlin Wall), "Thao Polasi and the local makietie", as well as "The third album: old hat, and other party tricks" — intrinsically, all part of what I term "Afro-peana" and indicative of a continued quest to develop a local architectural identity. Inevitably, I have to mention my contentious inaugural address "Committing architecture – the discrepancy between practice and academia", and also my personal favourite, premised on my erstwhile PhD, namely "The difference between floor area and space".

However, upon reflection, my own architectural career was propelled more by default than calculated vocational ambition. In hindsight, more like a Don Quixote compelled to charge a series of windmills.

The journey commenced upon graduation in the heyday of apartheid when I joined an obscure NGO, the Get Ahead Foundation, which supported small business ventures in the segregated townships. Apart

from building a series of modest (albeit colourful) structures, I felt compelled to initiate an art school that I ran over weekends with friends from the YMCA in Mamelodi. This undertaking caught the attention of the late architect Samuel Pauw, who generously sponsored the introduction of an architectural programme. The ultimate reward recently transpired when two former Y-Design students applied to SACAP for recognition of prior learning, following their establishment of successful architectural careers.

This self-inflicted induction into academia became a lifelong pursuit and was undoubtedly the most significant influence on the maturation of my architectural insight. I cannot refrain from singling out the inimitable Pancho Guedes, as well as my co-design lecturer at Wits, Peter Rich — both whose bodies of work emanate a creative exuberance that coincides with the *joi de vivre* of my all-time favourite artist, Walter Wahl Battiss. The association with Battiss extends over three generations, having originated with my grandfather's concurring teaching career at Pretoria Boys High and continued with the tutelage of my father. I have, though, decided to limit my presentation to a small number of projects, which in my view demonstrate most convincingly my approach to architecture. Although predominantly of a residential nature (and more circumstantial than necessarily by choice) these bespoke abodes chronologise best my architectural journey through time and space. >

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OVER THE YEARS, THERE HAVE BEEN INTERESTING TOPICS OF CONVERSATION, INCLUDING “FROM MARX TO MODDERPOORT” (FOLLOWING A TRIP TO EASTERN EUROPE SOON AFTER THE FALL OF THE BERLIN WALL), “THAO POLASI AND THE LOCAL MAKIETIE”, AS WELL AS “THE THIRD ALBUM: OLD HAT, AND OTHER PARTY TRICKS”

HOUSE JOUBERT, WATERKLOOF, PRETORIA (1988)

The first project pertains to a house I designed for my parents, soon after I returned from studying for my master’s degree in the United States. Premised more on nostalgia and homesickness than mnemonics (in current theoretical speak) my sojourn abroad called for introspection and imprinted on me the importance of working in a local design idiom.

Pa, an avid art collector, was adamant that the house should be developed around a courtyard, with ample wall surfaces for display. Cognisant of the fact the courtyard prototype is intrinsically of limited wall area and of univalent spatial expression, I realised that I had to develop two design alternatives: one meeting the preconceptions of my parents and the other, a personified interpretation of their requirements.

Although the over-embellishment of the exterior now seems a tad superfluous, the personalised environment — organised by an internal curvilinear wall (and not the semi-circle), seasonal patios and a deliberated spatial dynamic — found resonance with my courageous parents and brought them considerable pride and joy until my dad’s untimely passing in 1994.

THE IVY VILLA, CLYDESDALE, PRETORIA (CIRCA 1890, 1986)

Perhaps inevitably, the acquisition of my own house, soon before, was the most influential structure — in the literal sense of the word — on determining my future tectonic arsenal.

As a result of a confluence of personal circumstances, a friend and I bought a 100-year-old property located in one of the oldest suburbs in Pretoria. Situated on the corners of Ivy and Villa Streets, a subdivided and rejuvenated “Ivy Villa” generated both delight and neighbourhood consternation, with us, for many years, suspected of being practising Satanists!

I, however, was drawn to the property more due to the derelict outbuildings and presumably horse’s stables, than by the manor house. Yet, the subdivision of the century-old mansion was not only a town-planning first for Pretoria, but enabled me to sell my part of the house and embark on the renovation of the outbuildings.

THE STABLES & STUDIO, CLYDESDALE (1989, 1994)

It was one of the most invigorating experiences of my career to remove the corrugated sheeting from the balloon-frame and, in true Wright-ian fashion, “liberate the box”. Not only was the outside invited in, but also, new vistas were instantaneously created. The intrigue with the spatial drama derived from geometric distortions (as first explored in my parents’ house) found continued structuring application.

In addition, the amplification and contrasting of the original timber structure with high-tech glazing alerted me to the *independence* of the differing architectural elements: be it the floor, the wall, the ceiling, roof, or stairs, even reticulation — as so ably designed and installed by my architect friend Marnus Barnard.

This elemental cognition of architecture was more consciously pursued in the Studio, which was added a couple of years later, but also deliberately conceived as a volumetric inverse of the Stables. The Stables & Studio was home for more than a quarter of a century and elicited much response, but with a structural complexity that, in hindsight, can only be ascribed to youthful dare.

GROUP HOUSING, BROOKLYN, PRETORIA (1998)

Soon after completing the Studio, I was approached by a childhood friend with a request to subdivide an inherited stand in Brooklyn in Pretoria and develop three housing units. The original site included a thatch roof house, designed by Helmut Stauch in the 1950s for my client’s parents, and, incidentally, my favourite house as a child. Both my friend and I were adamant that the new development had to be respectful of the existing house, be executed in thatch, and be mindful of the assortment of well-established indigenous trees.

Perhaps subliminally, the project was partly a response to my PhD I was working on, but also to the fact that the emblematic 45-degree thatch-roof pitch is usually experienced internally only from one vantage point. With that in mind, I first developed the primary structure — premised on Le Corbusier’s dom-ino system — but of durable gum poles instead of concrete. Hence, the structure and thatch roof were erected prior to the non-load-bearing masonry walls, enabling also the habitual ribbon window butt to be fitted in between the gum poles, and ultimately with less difficulty than what I had anticipated.

This predetermined structure enabled a secondary, internal ordering system, whereupon the accommodation could evolve as so-called platforms in

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space, arranged in such a manner that the thatch roof can be experienced from multiple vantage points.

Although we ultimately built only one unit, the project generated a surprisingly enthusiastic response. Apart from housing the Pretoria Institute for Architecture for a number of years, it also became the prototypical premise of a series of ensuing commissions, culminating in a prefabricated version, presently being erected at an existing, thatched-roofed hotel complex in the Transkei.

HOUSE TZANEEN, TZANEEN, LIMPOPO (1998)

House Tzaneen resulted from an article on the Stables & Studio that my new clients had saved with the intention of one day appointing me as their architect. Without being stylistically prescriptive, my clients insisted, though, that the prospective house should address the heat, humidity and torrential rains of the subtropics. Unlike any houses in the vicinity, research indicated that a lightweight timber construction, combined with a reflective roof material and generous overhangs, would be most suitable.

This again resulted in a pre-erected gum pole structure, though this time covered (as at the Stables & Studio) with a sheet-metal roof-cum-ceiling, obviously — as in both instances — well insulated. Heat-retaining, masonry infill is restricted to service cores and extensive louver windows ensure much-needed cross-ventilation to which the open-plan configuration and double volumes significantly add.

The large roof overhangs accommodate entertainment areas on the north, whereas to the south on the first floor, a covered balcony serves as an outdoor bedroom during the long, humid summer season. A centrally located fireplace services the moderate winter. Tactile sensations include blue gum saplings nailed to the gum pole columns for both sun control and security and a colour scheme that mimics the lush vegetation of Tzaneen.

This cherished abode remains a favourite of mine, endorsed by wide-ranging national and international publicity.

HOUSE MOOIKLOOF, MOOIKLOOF, PRETORIA (2000)

House Mooikloof, in turn, was commissioned by two artists who anticipated their dream house on a difficult, west-facing site in the Mooikloof Estate on the outskirts of Pretoria. My clients were totally enamoured with their site, covered almost entirely by a wattle forest and flooded annually by a natural spring. Their zealously

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was further marked by an assortment of old doors and windows, collected over years and bartered for with painting and song. The design resolution was a juggle between an ambitious accommodation brief, a highly restrictive budget, the hotch-potch of doors and windows, and an assortment of odd memorabilia.

These difficulties resulted in a linear plan configuration, accommodating both a house and a studio, premised on — by now — my emblematic, gum pole structural system, but, in this instance, determined by the disparate dimensions of the recycled doors and windows. Care was also taken in addressing the problematic orientation, resulting in the henceforth introduction of suspended sun screens, integrated with the overall structural intent.

HOUSE ISLAND IN SEARCH OF AN OCEAN, BROEDERSTROOM, GAUTENG (2014)

After an academic interlude of eight years, I finally got back into the saddle by embarking on a design of a new home for myself, titled “House Island in Search of an Ocean”, after a Battiss painting, and a seminal project in the chronology of my journey. (Walter Battiss, *Walking island looking for an ocean*, circa 1980 Skawran, K. & Macnamara, M. Jhb: AD. Donker: 1985).

The anticipated new home was to be built on a coveted site situated in the Cradle of Humankind among sparsely populated smallholdings. The north-facing slither of Highveld savannah has a spectacular view across an unspoilt Bushveld valley, with Johannesburg vaguely visible to the south.

Apart from a respectful approach to the site, the design is emblematic of my informal, open-plan lifestyle, and (to the joy of my friends) generated in part by the position of the kitchen. The configuration consists of a number of interlinking pavilions — determined by the arrangement of the accommodation on the first floor — and covered by a geometrically-animated roof. The parametric roof resulted from a desired horizontal wall plate above a south-facing serrated wall. This wall not only edges the site, but also serves as a contemplated display for my >

“[MY] JOURNEY COMMENCED UPON GRADUATION IN THE HEYDAY OF APARTHEID WHEN I JOINED AN OBSCURE NGO, THE GET AHEAD FOUNDATION, WHICH SUPPORTED SMALL BUSINESS VENTURES IN THE SEGREGATED TOWNSHIPS. APART FROM BUILDING A SERIES OF MODEST (ALBEIT COLOURFUL) STRUCTURES, I FELT COMPELLED TO INITIATE AN ART SCHOOL THAT I RAN OVER WEEKENDS WITH FRIENDS FROM THE YMCA IN MAMELODI.”

treasured collection of paintings, whereafter it extends into the landscape to house a nursery for a collection of orchids, and embraces what is fancily called an infinity pool. The palette is restricted to natural building materials of low maintenance, but of intricate detailing, similar to that of the Stables & Studio.

In my view, this particular project is the culmination of the crystallisation of my personified architectural and aesthetic sensibilities — in all probability, a contorted minimalism, though rooted in place.

MAISON SUISSE, BROEDERSTROOM, GAUTENG (2014)

Regrettably, the coveted site was bought by a Swiss lady. A tad reluctantly, I accepted the recommended commission for her request for a holiday home of little maintenance and entirely “off the grid”.

The house shares some characteristics of House Island, though differently sited and mirrored on the client’s insistence. The elongated footprint is organised axially and purposely fragmented to accommodate both shorter and longer visits. The complex reticulation also impacted on the silhouette of the collection of buildings, held in check by a parasol-like roof, gathering rainwater at diagonal ends, and recycled via an eco-pond.

The success of the project’s realisation is attributed, conclusively, to the dedication of the contractor, as well as to a highly able team of environmental specialists, with House Island, yet —but hopefully soon — to find its ocean.

HOUSES ZIGZAG & SNAKES AND LADDERS, STELLENBOSCH, WESTERN CAPE (2015)

For my sins, disaster struck when House Tzaneen had to relocate to the fairest Cape to a housing estate outside Stellenbosch. And as the estate appointee categorically informed me, “*Meisie, ons in die Kaap doen nie Toskaans nie!*”

Adhering to the 60+ page rule book down to the symmetrical millimetre (despite a three-metre fall across the available stands) the sudoku-like design exercise ultimately materialised as prototypes Zigzag and Snakes and Ladders — the latter for a friend. But, no matter how hard my quirky clients and I tried to outmanoeuvre

the style police, they were onto us! Well, granted, intrinsically a wolf in sheep’s clothing, since the stereotomic exterior envelopes a tectonic interior of alternating, suspended floors of enticing spatial interaction unlike anything else in the nanny estate.

Eventually, my dear clients relented, sold out, and bought a rather ungainly-looking 1950s suburban train-house, where we are earnestly attempting to recapture some of the magic of coveted House Tzaneen.

**“AFTER AN ACADEMIC
INTERLUDE OF EIGHT YEARS,
I FINALLY GOT BACK INTO
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ON A DESIGN OF A NEW HOME
FOR MYSELF, TITLED “HOUSE
ISLAND IN SEARCH OF AN
OCEAN”, AFTER A BATISS
PAINTING.”**

PIERNEEF 267, DIE MOOT, PRETORIA (2016)

The final residential project pertains to the conversion of another nondescript house — though built during the 1960s and situated on the northern slopes of Pretoria, known as Die Moot. The project yielded surprising spatial results, also due to the creative input of the graphic artist owner of considerable aesthetic sensibility and architectural insight.

The original, three-levelled house was built on a long, narrow and steep site, consisting of a series of stone terraces. The first part of the exercise entailed the rezoning of the extant accommodation and the reconfiguring of the circulation through both house and site. The second stage included the design of a studio, with a cartouche — containing ablutions, a kitchenette and a pizza oven-like fireplace — serving as a space divider and roof support.

**“AS A RESULT OF A CONFLUENCE OF PERSONAL
CIRCUMSTANCES, A FRIEND AND I BOUGHT
A 100-YEAR-OLD PROPERTY LOCATED IN
ONE OF THE OLDEST SUBURBS IN PRETORIA.
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“IVY VILLA” GENERATED BOTH DELIGHT AND
NEIGHBOURHOOD CONSTERNATION ...”**

By removing the hipped roof of the original house and replacing it with a flat concrete roof, various double, even triple, volumes materialised, ideal for exhibiting large works by the prolific artist, but also for cross-ventilation. Both new roofs can be accessed for recreational purposes, taking advantage of commanding views.

Apart from the intended Corbusian *promenade architecturale*, the conversion draws on early-Pretoria modernist influences, paying homage to Norman Eaton’s textured surfaces and to the pioneering zero-hour initiative. Both conversion and addition are highly crafted, of muted palette, and structurally quite complex, with the client acutely aware that here, time and space have a particular relationship which he poetically personalises.

OTHER PROJECTS

The occasional project that exceeds anything of a domestic scale includes a self-initiated upgrading proposal of the Apies River — an occasion to also pay homage to the creative genius of Battiss who taught within the identified Pretoria precinct. After many years and numerous presentations later, the broader implementation of the proposal is still under consideration.

The recent assistance with a prospective presidential library in Johannesburg, as well as a previous submission for the Sarah Baartman design competition, reaffirm the

“BY REMOVING THE HIPPED ROOF OF THE ORIGINAL HOUSE AND REPLACING IT WITH A FLAT CONCRETE ROOF, VARIOUS DOUBLE, EVEN TRIPLE, VOLUMES MATERIALISED, IDEAL FOR EXHIBITING LARGE WORKS BY THE PROLIFIC ARTIST, BUT ALSO FOR CROSS-VENTILATION. BOTH NEW ROOFS CAN BE ACCESSED FOR RECREATIONAL PURPOSES, TAKING ADVANTAGE OF COMMANDING VIEWS.”

conceptual impetus derived from a strong affinity for our now-contested land.

- Tshane Rejuve-a-Nation, Pretoria (2010+) with Earthworld Architects
- Sarah Baartman Centre of Remembrance, Hankey, Eastern Cape (2000) with Bernard Viljoen
- Thabo Mbeki Presidential Library, Killarney, Johannesburg (2018) with CMAI Architects

ACADEMIC CAREER

In the context of tonight's presentation, it is appropriate to also refer to some of the highlights of my academic career, probably best remembered for my contentious exit address at the University of the Free State, which, in turn, pre-empted my inaugural address at the University of Pretoria. At both these occasions, I felt compelled to share in my frustration at poorly conceived work, the lack of substantial architectural input in the social housing arena and the general neglect of public buildings and civic spaces.

Following the publication of my inaugural in a national daily, an uproar ensued that not only took me completely by surprise, but had the public engaged in an architectural discourse this country had never seen before. Although the “sensationalisation” of my fatal reference to “Boere Toskaans” distracted somewhat from the other concerns I expressed, I do want to take a wee bit of credit for far more considered architecture being produced subsequently.

In response to the incessant questioning of what authentic South African architecture should look like, I felt compelled to assemble a body of meritorious work, which resulted in the publication of my first tome, *10+ years 100 buildings — architecture in a democratic South Africa* (or “the blue book”, as referred to by students). A number of years later, I again felt compelled to assemble a second version, but instead of built work, celebrate the extraordinary creative output by South African master's degree students which receives hardly any exposure outside of the colloquial confines of the respective tertiary institutions.

“APART FROM THE INTENDED CORBUSIAN PROMENADE ARCHITECTURALE, THE CONVERSION DRAWS ON EARLY-PRETORIA MODERNIST INFLUENCES, PAYING HOMAGE TO NORMAN EATON'S TEXTURED SURFACES AND TO THE PIONEERING ZERO-HOUR INITIATIVE.”

IN CONCLUSION

Much is being made about architecture being for people, but lest we forget, any built edifice is ultimately the result of expended human toil and, physically, excruciatingly hard work. My small construction team (usually called upon to do damage control after failed attempts by “*Sommer-Self-en-Vennote*”) consists of Jamon Nomkompela, David Tau and Frank Sealetsa. I have to make special mention of my carpenter-cum-contractor, Teun Reesink, who, at the age of 19, encountered a crazy young architect and realised (and resolved) most of her architectural visions, and similarly deserves unreserved praise.

I also wish to acknowledge the small number of individuals who contributed their enthusiasm and talent to “The OPU” (a moniker for *Die On-ekonomiese Praktyk van Uitnemendheid*) and offer them my heartfelt appreciation: Ian Thompson, Alan Lucini, Thomas Gouws, Alex Oppen, Gert van der Merwe, Ferdinand le Grange and Lieze Swart.

In the final analysis, it is flattering to keep company with pioneering Modernist Mies van der Rohe and Australian architect Glen Murcutt in a comparative exam question (for 30 marks) from the Nelson Mandela University.

And, as some anonymous wisecrack so succinctly remarked:

*“Ora Joubert's architecture has a jolly kink that you
don't easily find in the work of others
she is known for butterfly roofs, held in check by
stainless steel cables
she occasionally works in steel
she works in a module [and how right he is!]
is fond of using glass, which she seals with silicone
she takes climatic factors into consideration
her buildings form a unity with nature
she uses materials that are locally made, with
filled-in walls
her buildings are cheap, and suitable for a low
budget [not entirely sure my quantity surveyor would
necessarily agree]
she also teaches students to address the
architectural problems of South Africa and to
accept the fact that they live in Africa and to
design accordingly.”*

I thank you. ➤





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IN A DEMOCRATIC
SOUTH AFRICA

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**10+ years
100 projects**
ARCHITECTURE
IN A DEMOCRATIC
SOUTH AFRICA

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21ST CENTURY MAKERS

*The influencers and design philosophy of earthworld architects
and interiors (2000–2018).*

By: Professor Arthur Barker, Department of Architecture, University of Pretoria

1

At a recent Designer, Architect and Specifier (DAS) mini-conference in Pretoria one of earthworld's founding members, André Eksteen, presented an overview of their architectural practice and its philosophies. One image from the presentation that outlined architectural influences, King's College Cathedral, stood out in stark contrast to other more contemporary examples. Although Eksteen commented on the relationship between form and material, the architecture also, perhaps subconsciously, represents other aspects of earthworld's practice philosophy such as a structurally rationalist and phenomenological attitude to the making of architecture, the architect as master maker and an alignment with craftsmanship.

Following on from articles on the architecture of Thomashoff+Partners and Marguerite Pienaar in the 2015 and 2016 July/August issues of *Architecture South Africa* respectively, this article will also sketch the biographical influences and design philosophy of earthworld architects and interiors to not only increase the limited record of the practice of South African architects, but also to elucidate design approaches.

MAKERS IN THE MAKING

Braam de Villiers (1968—) and André Eksteen (1971—) both graduated from the Department of Architecture at the University of Pretoria (UP) in 1995. In March of that year, De Villiers became the second UP student to win the Corobrik National Architectural Student of the Year Award with his dissertation project “A city market for Bosman Street Station”¹. Both De Villiers' and Eksteen's dissertations set normative position for future endeavours, most recently realised in the Future Africa Innovation Campus at UP. De Villiers' dissertation focused on African space making and an architecture of tectonic contrasts while Eksteen's project explored the possibilities of prefabrication.

The roots of the practice philosophy were, however, grounded long before the partners began their architectural education and association. Eksteen recalls that growing up in a seriously DIY family, he always had little projects to do. “Whether it be a new trailer or a fence or kitchen cupboards, I always had something going in terms of making things. It was not a surprise that my voyage of discovery led me to a fascination for materials.” (De Villiers and Eksteen, 2018). This is clearly evident in his many visits² to the famous Pretoria-based architect Peter Hattingh's House Jordaan in Lynnwood, which is a tour de force of material inventiveness and phenomenological exuberance. While still at secondary school, Eksteen worked for an architectural practice that provided a solid grounding for his entry into architecture school. De Villiers' upbringing was seemingly more academic as his father's career began in the natural sciences culminating with an MBA and PhD in Economic and Management Sciences and a professorship at UP. De Villiers' childhood was culturally inclined as he

took on the musical inclinations of many of the family members by playing the violin.

Both partners cite their educational influences as being iconic Modern Movement architects, lecturers and fellow students. De Villiers notes (De Villiers and Eksteen, 2018) that his partner is influenced by Louis Kahn³ (1901—1974), Frank Lloyd Wright (1867—1959) and Mies van der Rohe (1886—1969), while he is a Le Corbusier (1887—1965) disciple, no doubt spurred on by the local canonic formal influences of ‘Ora Joubert⁴ (1959—). De Villiers is also inspired by another set of local canonic buildings, those by Roelof Uytendogaard⁵ (1933—1998). Steinkopf Community Centre, in the Northern Cape, particularly inspired De Villiers as a student. The partners highlight that they were fortunate to be educated by the tail end of the real modernists at UP such as Jo Kemp⁶ (1941—) and Dieter Holm⁷ (1936—) who provided them with future thinking skills (such as energy and sustainability) and Hans Wegelin⁸ (1940—) who inculcated a strong technical education. The partners also recognise the input of Emeritus Professor Roger Fisher⁹ (1951—) and his introduction of ecosystemic thinking¹⁰ as well as the studio teachings of Anton du Toit¹¹ (1934—), whose buildings were technologically innovative. Critical design thinking skills, inculcated by Emeritus Professor Schalk le Roux¹² (1945—), supported a solid theoretical grounding by lecturers Piet de Beer¹³ (1957—) and Eloise Laubscher¹⁴ (1965—). Through De Beer, they were introduced to the theories of Norberg Schulz (1926—2000) (and its antecedents in Heidegger's writings) and these approaches have consistently shaped De Villiers' and Eksteen's thinking about architecture's relationship to place. Classmates who the future partners formed a close association with included Amanda Breytenbach¹⁵, Marianne de Klerk¹⁶, Heinrich Wolf¹⁷ and Marcus Smit¹⁸, all of whom were strong designers with a dedicated studio work ethic.

Directly after completing their studies, both future partners worked for Joubert, Kammeyer¹⁹ and De Villiers²⁰ architects. As Heinrich Kammeyer was teaching at Wits and André De Villiers at UP, De Villiers and Eksteen had an unconventional practice training as they had to find their own way of working without constant guidance. At the time, they were tasked with the design and construction of 12 schools. Steel-framed technology was relatively new for the time, as was skills transfer with emerging builders, so the new graduates had to quickly learn how to engage directly with subcontractors. As the practice was based in Kammeyer's house (which he himself built), the future partners were surrounded by a haptic architecture of Semperian-like²¹ “floating” roof and “grounded walls”; and it was the discussion of the nature of architectural elements with Kammeyer that still serves as inspiration. >

¹ Future Africa Innovation campus — dining hall interior.

Earthworld's House Mouton (2014), in the Roodeplaat Dam catchment area, epitomises the early "Semperian" practice influences, while echoing the late Modern Movement organic interpretations²² of Pretoria-based architect Karl Jooste (1925—1971). House Mouton is grounded in place through its pavilion organisation, roofs that mimic the surrounding acacia thorn trees, stone walls that emulate the surrounding hills and "anthill-like" fireplaces (<https://www.ewarch.co.za/about/>).

EARTHWORLD IS BIRTHED

The dire financial crisis of 1997 resulted in both future partners being retrenched and going their separate ways. De Villiers obtained a Fulbright scholarship and, in 1998, completed a master's degree in bio-climatic design at the University of Arizona in the United States of America. Eksteen worked from his parents' garage on jobs for family (including his sister's house), while de Villiers, on his return to Pretoria, worked on small alterations and additions projects from 'Ora Joubert's house in Clydesdale. Later, De Villiers moved to a John (Johannes) van de Werke (1913—1980)²³ house in Waterkloof, Pretoria, and Eksteen soon followed. They were joined by a range of creatives including architects Gerrit Wassenaar²⁴ and Faan Nel²⁵. In 2000, they

formed a joint practice, André Eksteen and Braam de Villiers Architects. A series of sketchbook titles such as *sky world* and *earthworld* were the incidental inspiration for the eventual practice name. This marked the start of a prolific and highly-awarded²⁶ architectural practice.

One of Eksteen's first important architectural forays was a house on Betty Street, Pretoria, "situated at the foot of the northern hang of Meintjies Kop, a 'kopje' gaining prominence due to its southern hang providing the backdrop of the Union Buildings". (<https://www.ewarch.co.za/post/2324/house-visser/>). The use of a brick barrel

vault and contrasting light steel window frame signifies the beginning of the practice's unconventional tectonic experimentation with materials and structure.

PRACTICE PHILOSOPHY

"In the *making* of meaningful things" (<https://www.ewarch.co.za/about/>) earthworld's practice philosophy — founded in creative and supportive upbringings, an ecosystemic tertiary education and unconventional practice experience — has resulted in a manifesto founded, mainly, on phenomenological and tectonic principles. It argues, in a critical Post-Modern sense for a return to an architecture of the senses, that is grounded in place and which fosters relationships between user and their direct and broader environments.

**BOTH PARTNERS
CITE THEIR
EDUCATIONAL
INFLUENCES AS
BEING ICONIC
MODERN MOVEMENT
ARCHITECTS,
LECTURERS AND
FELLOW STUDENTS**



*"In pursuit of beauty ... a single brush stroke should suffice.
A building should be simple; yet provocative and dynamic.
... a building should be an emotional experience
... move you
... technology and programme guide the process
... a building defines the inhabitant's relationship to the world itself ...
the way it's entered ...
an existential reference ...
space should embrace technology, culture, style, nature and context space should ...
... pay homage to the site
... have respect for function
... embrace the natural and man-made order
... be harmonious with nature and climate
... pay service to aesthetic values ...
Proportion, Light, Shade, Mood, Texture, Atmosphere"
(<https://www.ewarch.co.za/team/>)*

But, the practice philosophy is also deeply engaged with the creation of meaning, not only for the designer and user, but the maker too. "With our world becoming more and more global — virtual and less defined — the need for defining the *Heimat*²⁷ has become greater than ever." Meaning has become more important than ever. Falling Waters by Frank Lloyd Wright, built for the Kauffmann family in the 1920s, transcends the physical to become an icon; to become a "Meaningful Thing". It epitomised progress without being industrial ... by becoming a symbol of innovation whilst acknowledging the context without trying to imitate or assimilate" (<https://www.ewarch.co.za/about/>).

De Villiers and Eksteen regard themselves as "obsessive-compulsive" designers who enjoy every part of the design process. They believe that all aspects of a building should be designed while a coherent conceptual framework for design is also crucial. They lament that many architects tend to focus on achieving the "big idea", as opposed to understanding that design is part of a larger discipline of critical thinking and iteration. "As designers, we tend to lose perspective, forgetting the bigger picture, and focusing on either function or budget or the clients' preferences that they bring to our offices to show us how much they've done their homework. Function can be an informant but it is not a concept."

For earthworld, conceptual thinking is a multi-faceted exercise that should avoid a singularity of approach. It can be argued that their design process is organic, which allows for a multiplicity of inputs, not only from the client, but also from those making the buildings. The partners indicate that they have developed an intuitive way of designing over the years, but it can be argued that, in their case, the intuitive is guided by the rational as they believe that, among other influences, the building is primarily a tool for place making. It is these contextual influences, which vary from the natural to the social (or

DE VILLIERS AND EKSTEEN HAD AN UNCONVENTIONAL PRACTICE TRAINING AS THEY HAD TO FIND THEIR OWN WAY OF WORKING WITHOUT CONSTANT GUIDANCE

even economic), that provide inspiration and guidance for design, while rationality is used to assess the "product" against its intended "purpose".

PLACE MAKING

De Villiers and Eksteen argue for an architecture of meaning in place as "physical contexts ranging from global to regional, national, urban and neighbourhood have caused changes to associations rather than locations". They also argue for architecture that is both catalytic and multi-faceted, "especially in a country with real problems ... buildings can play a much greater role than merely fulfilling a critical function. Every intervention must have maximum benefit on an industrial, social, economic and, most importantly, phenomenological level. Every opportunity to build must be used as a catalyst for change and upliftment".

Earthworld's belief in the importance of place, *genius loci* and associated meaning has created a standpoint that is partially critically regionalist through its critique of the "glocal". Earthworld believes that "the complex contextual matrix of fitting into the global as well as the neighbourhood has brought architecture to a crossroads. With cities and communities becoming virtual, the role of the architect as 'place maker' is changing. Identifying with a certain culture, without actually or physically being at a certain location, has become the norm. Gathering meaning in things is becoming increasingly arbitrary" (<https://www.ewarch.co.za/about/>).

The I-CAT Offices and Warehouse (2015), which received a Pretoria Institute for Architects' (PIA) award for commercial/brand-related architecture in 2017 as well as a SAIA Award of Merit in 2018, epitomises the practice's place making philosophy. I-CAT is a "production oasis in the monotony of a Pretoria East industrial enclave ... the main [north-facing] courtyard, with a two-storey high steel and timber pergola, creates a welcoming entrance while providing south light to, and views from, all of the glazed administrative areas" (Barker, 2017). The project is also place bound through the application of three principles of sustainability, namely ecological, social and economical, that showcase the client's philosophy toward the natural environment through passive systems such as orientation, shading, natural ventilation and lighting (<https://www.ewarch.co.za/post/2337/cat-eco-factory/>). ➤

2 & 3 Schools that De Villiers and Eksteen worked on in their formative years with Joubert, Kammeyer and De Villiers architects. **4** House Mouton. **5** House on Betty Street.

**A SERIES OF SKETCHBOOK
TITLES SUCH AS *SKY
WORLD* AND *EARTHWORLD*
WERE THE INCIDENTAL
INSPIRATION FOR THE
EVENTUAL PRACTICE
NAME. THIS MARKED
THE START OF A PROLIFIC
AND HIGHLY-AWARDED
ARCHITECTURAL PRACTICE**

In House Van Dyk, which won a PIA Regional Award for Residential Architecture in 2017 and a SAIA Award of Merit in 2018, the simple conceptual idea of an architectural promenade and central entrance courtyard mitigates against the blight of estate living. There is a clear tectonic distinction between the warm plywood interiors and external articulation through steel and timber *brise-soleils* while the formal geometries bear a close allegiance with site form, both in plan and section.

House Coertse (2017) at Waterfall Country Living Estate in Midrand, Gauteng, is a north-facing home ordered on two levels with a perforated folding screen at the upper level to provide privacy for the bedrooms and a contrasting glazed living area below, reminiscent of Pierre von Meiss' theories of gravity in architecture²⁸. This formal opposition grounds the building to its site through a range of introverted and extroverted spaces.

Likewise, the Centenary Building (2010) at the University of Pretoria's Hatfield campus, which won PIA and SAIA awards, is informed by, and, generates place. The organisation of the six 300-seat auditoria roots the building in place while an architectural promenade is used to connect to the surrounding movement routes. The building is also rooted in place through its "micro regionalism" (<http://www.worldarchitecturenews.com/project/2010/13427/earthworld-architects/centenary-building-in-pretoria.html>) as it responds, formally, to other late Modern Movement inspired buildings such as Brian Sandrock's²⁹ (1925—1990) Administration building (1963—1968) and the adjoining Law Faculty (2004) by Martin Kruger³⁰ (1957—).

MASTER MAKERS

De Villiers and Eksteen lament the ever-increasing limitations placed on architects, as well as their dwindling impact and argue for a reconsideration of the role that modern day technology can play in

redefining the task of the architect.

"Have we become designers of systems, applying technology, rather than creating modern-day cathedrals — structures that transcend reality, buildings that become icons, gathering meaning rather than being machines ... buildings that become central figures in the drama of everyday life. In our practice, we explore the role of architecture and technology (not industry) to bridge the gap between the system (non-tangible, abstract) and the physical (materiality, form, texture). We explore the notion that architecture can be de-materialised by mastering the tectonic and, in so doing, to change



the way people interact with architecture to elicit its deeper meaning and associations"
<https://www.ewarch.co.za/about/>)

Equally important for the practice, is honesty and expression of structure reinforced by Eksteen's assertion (De Villiers and Eksteen, 2018) that the structure and technology used in a Gothic cathedral is logical, visible and legible. This reaffirms Frampton's restatement of the principles of Structural Rationalism as originally espoused by Viollet-le-Duc³¹ who argued that "in architecture, there are two necessary ways of being true. It must be true according to the programme and true according to the methods of construction. To be true according to the programme is to fulfil exactly and simply the conditions imposed by need; to be true according to methods of construction is to employ the materials according to their qualities and properties" (1992:64).

These principles are exemplified in almost all of the practice's buildings. In the HEFF *Quipaco* hunting lodge (2010) in Mozambique, the practice began experimenting with prefabricated timber construction in a factory setting with transport to, and installation on, site. House Alto (2013) in the Cape is an extension of these ideas using a combination of steel and timber frames made off-site and erected in situ. *Stortemelk* Hydroelectric Plant (2016), which received a 2017 Award for Architecture from the Free State Region of South African Institute of Architects (FSAIA) and a 2018 SAIA commendation, overtly explores the possibilities of the contrast between a stereotomic concrete base and tectonic steel frame, clad with corten steel and polycarbonate sheeting.

MATERIALS AND MAKING

Eksteen emphasises that for him, 90 per cent of all design inspiration comes from the material, once an overall concept (defined by place and programme) has been formed. De Villiers laments that architects have lost the ability to choose materials according to their inherent nature as the ubiquitous product catalogue has dumbed down architectural decision-making. He asks, like Kahn, "what does the building (material) want to

6 I-CAT factory. 7 House Coertse.

be? The more we master technology, the more we close the gap between the natural and man-made world, and between art and architecture. We realise, however, that technology is not the generator but merely the medium” (<https://www.ewarch.co.za/about/>).

The practice has, over the years, experimented with a number of materials, initially brick, later concrete, then steel and more lately timber, but it is the honesty of use, expression and innovation that sets the practice’s work apart from much of the local conventional architecture of today. Their approach to technology echoes that of Gawie Fagan (1925—) whom the partners look up to. Fagan’s choice of appropriate materials mediates practical and aesthetic requirements and echoes the sentiments of Gottfried Semper (1989:102), who argued that “... if the most suitable material is selected for their embodiment, the ideal expression of a building will of course gain in beauty and meaning by the material’s appearance as a natural symbol”. De Villiers (De Villiers and Eksteen, 2018) also cites Norman Eaton (1905—1966)³² as a major local architectural influence in this regard. Regionalist architects like Eaton reconciled industry and art through the inventive use of elements such as brick and tile. Eaton’s woven walls and patterned woodblock floors are demonstrative of a craftsman using standardised materials at hand to create a regionally rooted idiom. Eaton saw this approach as a way out of the “inconsistency, incoherence, disharmony, and general chaotic ugliness of architecture” at the time (Harrop-Allin, 1975:26).

The Tribeca central (2016) and I-CAT factories (2015) are both bold experiments with the honest use of clay brick, the tone being set by House Coetzer in 2000. The stereotometry is, in both cases, countered not only by tectonic additions, but also by curved corners and patterned facades, not unlike Eaton’s. But the development of these design approaches, through the use of brick, are clearly visible in the partner’s first investigations, in the school projects, undertaken in their formative practice years.

Houses Gauche (2010) and Nieuwenhuys³³ (2016) are bold, but contrasting, experiments in the use of concrete. Gauche’s horizontal expression is structurally determined as the house is suspended between two rocky outcrops to minimise site intervention. House Nieuwenhuys is composed of a series of deep concrete frames (on steel portals at times) that capture and release space to achieve privacy, focused views and external connections in a tight, and mundane, suburban setting. The heaviness of concrete frames a lightness and interconnectedness of Adolf Loos³⁴ like space.

House Van der Westhuizen (2016) follows a line of investigations into prefabricated steel construction prompted by Awazi Petroleum (2009)³⁵ in Menlo Park, Pretoria, Foghound Interactive Coffee Company³⁶ in Midrand (2012), Phakalane (2013) in Botswana, and Houses Alto (2013) and Izeboud (2013). All of these examples are based on a repetitive steel portal frame with glass or timber infill panels. The aesthetic of many of >



“AS DESIGNERS, WE TEND TO LOSE PERSPECTIVE, FORGETTING THE BIGGER PICTURE, AND FOCUSING ON EITHER FUNCTION OR BUDGET OR THE CLIENTS’ PREFERENCES THAT THEY BRING TO OUR OFFICES TO SHOW US HOW MUCH THEY’VE DONE THEIR HOMEWORK. FUNCTION CAN BE AN INFORMANT BUT IT IS NOT A CONCEPT.” — EARTH WORLD ARCHITECTS AND INTERIORS

8 House Alto. 9 Stortemelk Hydroelectric Plant. 10 Tribeca Central.

these buildings, in particular, House Alto is generated by standard lengths of steel that minimise wastage.

HEFF *Quipaco* hunting lodge (2010) was also the start of long-term investigation into the possibilities of timber construction, spurred on by the experiences of Eksteen growing up in a house of timber poles with steel-framed glazed windows and doors, constructed by his father. In 2009, House Zeeman, an early 20th century Herbert Baker³⁷ School Residence in Pretoria, was altered through the addition of a number of elements including the honest use of natural materials in “a timber veranda, which was bolted to the existing building. It projects into the garden, drawing in the natural landscape. Standard lengths of laminated saligna, bolted together, minimised waste and improved recyclability” <https://www.ewarch.co.za/post/2329/house-zeeman/>). House Van der Merwe (2014) in Stellenbosch was an experiment with a double pitch portal frame, the idea of which has been innovatively extended in the Future Africa Innovation Campus. In House Dreyer (2017) “a timber portal frame prefabricated in a workshop and assembled on site is used for the first floor to reduce time on site and challenge the norms of materiality. The finishes of both the interior and exterior of the timber structure reflect the structural materiality, clad with thermo-treated poplar on the exterior; birch plywood between the portal frames on the interior ... the design stands as an example of how traditional construction techniques and material choices can be challenged” (<https://www.ewarch.co.za/post/2915/dreyer/>).

THE PROCESS OF MAKING

One could argue that the antithesis of industrialisation is art and that craft is a mediative condition. The consequences of the Industrial Revolution were bemoaned by many architects and historians, including John Ruskin (1819—1900), who remarked that “the last form of fallacy which it will be remembered we had to deprecate, was the substitution of cast or machine work for that of the hand, generally expressible as ‘operative deceit’. There are two reasons, both weighty, against this practice; one, that all cast and machine work is bad, as work; the other, that it is dishonest” (Ruskin, 1849:34). During this time, “charts replaced apprenticeship” (Mitcham, 2005:37) while “arguably, the evidence of the hand in preindustrial architecture [that] conveyed a sense of value, commitment, and importance in each detail of an architectural work” (Carlson-Reddig, 1997:99 began to be lost.

Although Earthworld believes in the honest expression of materials, does not negate the machine, but rather, in a critically regionalist way, argues for the reinvention of the craftsperson, using new technologies, as a counter to modern-day standardisation. Earthworld’s vision is to use technologies such as digital manufacturing processes to assemble buildings. It is an argument for the “systemisation of technology ... as today architecture



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12



13

11 *House Gauche*. 12 & 13 *House Niewenhuys*.



is moving more and more towards the system, or is forming a critical relationship to the system within which it functions” (<https://www.ewarch.co.za/about/>). This approach extends the thinking of the hi-tech architects such as Renzo Piano (1937—), whom the practice partners also admire.

The construction and infill of the incomplete House Fitzgerald (2010) is a middle ground approach towards the reinvention of the craftsman. Overtly crafted sheer concrete walls provide privacy for the various rooms while prefabricated inclined steel frames, made by a specialist subcontractor, provide the first layer of enclosure. It is in the second layer of enclosure where machine technologies are merged with handcrafted items such as the brass fittings that facilitate glazing fixings and openings.

One of earthworld’s most important contributions to architectural design has been the rethinking of the construction process to limit time and wastage, to reduce costs and add value to those making the buildings. “In our early careers we built most of the buildings ourselves, so you had to design in such a way to construct the building, not as it traditionally happens in series but, rather in parallel. Then issues like prefabrication and tolerances become important” (De Villiers and Eksteen, 2018). The partners argue that architects must design the entire system, from economics to labour to create a demand for new skills. Materials can still be imported, where cost-effective, but they should be processed locally to mobilise a series of possible economies. “Traditionally, a construction process changes many hands, going from sourcing to manufacturing, to retail, eventually reaching the site through contractors. Shortening this value chain

would drastically reduce cost and time; dealing directly with manufacturers also allows for greater understanding of construction materials and improves quality control” (<https://www.ewarch.co.za/post/3096/futureafrica/>). This socialist viewpoint echoes the critical Post-Modern and humanist thinking of Kenneth Frampton in his writings titled *Labour, Work and Architecture*. Frampton (Jaskot, 2004:125) defines labour as “essentially natural and related to biological processes, and work as fundamentally artificial in that it produces the world of things and the borders in which individual life occurs. In the modern world of consumption and faith in technology, the sphere of objects dominates to the point that individuals are subject to the ever-changing and impermanent world of the commodity, architectural and otherwise. Such a social condition replaces ... culture with the production of kitsch or the celebration of technology for its own sake”. It is the latter tendency, in particular, that earthworld is at pains to avoid. Consequently, it tries to limit middlemen in the construction process, by directly linking suppliers with manufacturers thus reducing costs and giving meaning, and value to labour. This limits the currently perceived disconnect between form and meaning and engenders a more positive relationship between designer, craftsman and user. This approach is also akin to the medieval master builders where the precise sizes and details of the Gothic building were not finalised, but left to those individuals who happened to be on site, representing an ever-changing dynamic design and construction process.

These approaches have all been realised in the practice’s latest, and largest, project to date, the new Future Africa Innovation³⁸ at UP. “The brief required a number of programmes to be accommodated on the campus, including a dining hall, conference centre, research commons, and 300 living units, with varying scales, ranging from single bedrooms to family units” (<https://www.ewarch.co.za/post/3096/futureafrica/>).

“The intention was to challenge existing design and construction processes by combining high-level design processes with local resources and skills. Each programme has been addressed through a specific solution to minimise time on site, as well as rethinking how traditional materials are employed. The housing units are prefabricated from precast concrete and assembled on-site, with services and fittings already having been installed. In the dining hall, through inter-disciplinary partnerships with designers and manufacturers, flat-pack, 90mm thick bolted birch plywood portal frames were developed to carry the envelope. Designed in segments, the portals were transported to the site and assembled in a matter of hours, reducing the need for water, shuttering, heavy machinery” (<https://www.ewarch.co.za/post/3096/futureafrica/>). The relationship between structure and enclosure is heightened by a separate larch window sub-frame system that facilitates a connection to the outside world, controlled >

14 House Van der Westhuizen. 15 House Izeboud.

light and sun while creating a unique phenomenological experience. The contrasting stereotomic housing units are prefabricated concrete shells, organically but structurally organised to create a semi-urban experience on the “rural” campus. It is here that the integration of structure and services is innovatively expressed, but, more so, pragmatically organised to ease construction and maintenance over time.

CONCLUSION

The tectonic resolution of Future Africa Innovation Campus represents a culmination of more than 20 years of practice experience that has cemented the architectural maturity of earthworld architects and interiors. The campus buildings exemplify earthworld’s practice philosophies that were founded in creative and supportive upbringings, an ecosystemic education and unconventional practice experience. They also demonstrate the principles of structural rationalism, the role of modern-day technology and craftsmanship and a healthy dose of phenomenology, which, together, have created a unique set of spaces embodied with meaning for designers, makers and users. Subconsciously, the underlying architectural and tectonic principles of Gothic architecture have been extended through modern-day technologies. Earthworld’s conscious approach to architectural design and construction has certainly set a benchmark for cerebral practice in the 21st century and demonstrates that the makers have certainly been “made”.

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AWARDS:

- 2018: SAIA — Award of Merit for I-CAT Offices and Warehouse
- 2018: SAIA — Award of Merit for House Nieuwenhuys
- 2018: SAIA — Award of Merit for House Van Dyk
- 2018: SAIA — Commendation for Stortemelk Hydropower Project
- 2017: FSAIA — Award for Architecture: Stortemelk Hydropower Project
- 2017: PIA — Regional Award for Commercial/Brand-related Architecture: I-Cat Environmental Solutions
- 2017: PIA — Regional Award for Residential Architecture, New: House Van Dyk
- 2017: PIA — Award for Architecture: House Nieuwenhuys
- 2016: SAIA — Commendation: New Coffeeshop and Showroom for Foghound Interactive Coffee
- 2016: SAIA — Commendation: House du Plessis
- 2016: Retail Design Awards — Commendation: Lucky Bread Company, Mall of Africa
- 2015/16: AfriSam-SAIA Award for Sustainable Architecture & Innovation: I-Cat Eco Factory
- 2015: PIA Award Commendation: Tribeca Original
- 2015: PIA Award for Architecture: New Coffeeshop and Showroom for Foghound Interactive Coffee
- 2015: PIA Category Winner — Commercial or Brand-Related Architecture: New Coffeeshop and Showroom for Foghound Interactive Coffee
- 2015: PIA Award of Excellence: House Mouton
- 2015: PIA Award for Architecture: House du Plessis
- 2014: Retail Design Awards: Best Restaurant Design 2014
- 2014: PIA Award — Commendation: House Gauche
- 2013/14: PIA Award — Architecture of Merit: House Gauche
- 2012: Retail Design Awards — Best Retail Restaurant in South Africa
- 2009: SAIA Award of Merit Award in Architecture: Centenary Building
- 2009: PIA Award for Architecture: Centenary Building
- 2009: PIA Award of Merit for Architecture: Centenary Building
- 2009: PIA Peer Awards: Centenary Building

FOOTNOTES

¹ S.n. 1995. Corobrik Architectural Student of the Year. Architect & Builder, March: 25.

² Eksteen lived only a few doors down.

³ Eksteen also worked for a Pretoria-based architect, Louis Cloete, who studied under Kahn (De Villiers, B. and Eksteen, A. 2018)

⁴ "Ora Joubert (1959–) graduated *cum laude* from UP in 1983, later obtaining an MScArch degree at Pennsylvania State University in the USA and a PhD at the University of Natal. She was appointed head of the Department of Architecture at the University of the Free State, Bloemfontein, from January 2001 until August 2004, and thereafter here at the University of Pretoria until 2008. She is currently Affiliated Professor at the University of the Free State, and in private practice. In 2018, she became the 30th Sophia Gray laureate.

⁵ Undergraduate training in architecture at the University of Cape Town. Awarded the RIBA Rome Scholarship (1957). After two years in Rome, studied under Louis Kahn and David Crane at the University of Pennsylvania. Visiting lecturer to several US schools. Joined the Faculty of Architecture at UCT (1967); Professor of Urban and Regional Planning (1970); then Professor of Architecture and Planning. Has received several design awards. Believes in a small office in which work is given personal attention, and therefore had a studio at home. In 1985, was in association with Norbert Rozendal and at the time of the Steinkopf project was in partnership with Ian Macaskill (<http://www.artefacts.co.za/main/Buildings/archframes.php?archid=2099&count dd=1> [Accessed: 11/04/2012 14:25]). His early work was influenced by Le Corbusier and Kahn but later reflected a more contextual approach with Alvar Aalto nuances.

⁶ Kemp graduated with a BArch degree at UP in 1964 and became professor in 1987.

⁷ Professor Dieter Holm was the head of the Department of Architecture at the University of Pretoria from 1986 to 1996.

⁸ Hans Wegelin joined the department in 1970, being promoted to senior lecturer in 1986 Associate Professor in 1999 and retiring in 2005.

⁹ Anton du Toit joined the department as a junior lecturer in 1959 shortly after completing his BArch degree. He later obtained a MArch degree, becoming a full-time lecturer in 1967.

¹⁰ An ecosystem is formed by the interaction of a community of organisms within their physical environment. The interaction may be biological, physical, psychic or all. Thus, ecosystemic thinking has a relational context with an awareness of interconnectedness between organisms.

¹¹ Emeritus Professor Roger Fisher graduated from UP in 1982. He started his academic career as junior lecturer in 1986 and subsequently acted as Head of Department on a number of occasions. He was the recipient of the Heritage South Africa Gold Medal in 2013 in recognition of his contribution to the field. In 2010, he was the recipient of the Writers and Critics Award from SAIA and a publication that he co-edited, *Eclectic ZA Wilhelms: A shared Dutch built heritage in South Africa* was awarded an Award of Excellence by the South African Institute of Architects in 2016.

¹² Schalk le Roux completed his first qualification in 1971 and later MArch and PhD degrees from UP. In 2002, he received a Medal of Honour for Architecture from the SA Akademie vir Wetenskap en Kuns. He was Head of UP's Department of Architecture from 1996 to 2004.

¹³ Piet de Beer graduated with his BArch from UP in 1986 and, after being awarded a Fulbright Scholarship, received a MArch at Pratt Institute, New York. He was senior lecturer at UP from 1986 until 1992, thereafter at the University of Cape Town. For many years, he was also the editor of *Architecture South Africa*.

¹⁴ In 1989, Eloise Laubser graduated with a BArch *cum laude* from UP and received the ISAA award for best final year student in design. After working for Samuel Pauw, she taught part-time at the department, Free State and at UCT.

¹⁵ Amanda Breytenbach (1970–) graduated with a BArch degree from UP in 1994. She later joined the Wits Technikon as a lecturer in the Interior Architecture Department after working in private practice. She is currently the vice-dean of the Faculty of Art, Design and Architecture at the University of Johannesburg.

¹⁶ Marianne de Klerk (1970–) graduated from UP in 1995 with a Bachelor of Architecture degree, awarded with distinction. In 1998, she was awarded a Fulbright scholarship and from 1998 to 2001 she completed two master's degrees (Master of Science in Architecture Studies and Master of City Planning) at the Massachusetts Institute of Technology. She returned to South Africa in 2008 after working as a senior associate at the Thompson Design Group in Boston for nine years. Based in Pretoria, she established her own firm, Marianne de Klerk Architects and Urban Designers. In 2015, she co-organised the UDISA Re-imagine Urbanism conference and is currently serving as the UDISA North vice-chairperson.

¹⁷ Heinrich Wolff completed his undergraduate degree at UP in 1991 and his post-graduate degree at the University of Cape Town in 1995. He now practices with his wife, Ilze, after being in partnership with Jo Noero for almost 16 years.

¹⁸ Marcus Smit graduated from UP in 1994 and established Marcus Smit Jacobs Architect (currently located in the Western Cape) in 1996.

¹⁹ Heinrich Kammeyer graduated from the University of Cape Town in 1971. He received MArch and PhD degrees from UP.

²⁰ Professor André de Villiers graduated from and taught for many years at UP.

²¹ The 19th century architectural theorist, Gottfried Semper (1803–1879), classified the Mediterranean Hit at the 1851 London exhibition as comprising four elements, namely hearth, earthwork, framework/roof and an enclosing membrane (Frampton. 1995:85).

²² Inspired through Le Corbusier's Mediterranean vernacular associations.

²³ Van de Werke was born in Utrecht in the Netherlands. As a trained architect, he moved to Pretoria in 1935, where he practised until his death. He was renowned for his distinctive houses, numbering over 50 in total, mainly in Pretoria, some of which were influenced by the contemporary country house style in the Netherlands (<https://www.artefacts.co.za/main/Buildings/archframes.php?archid=4432>).

²⁴ Gerrit Wassenaar graduated in 1995 and is a director of an award-winning Pretoria practice, Arca Unlimited.

²⁵ Faan Nel graduated from UP in 1996 and is also a director of an award-winning Pretoria practice, Arca Unlimited.

²⁶ The practice has won 25 awards in its 18-year existence.

²⁷ German for home or homeland, which means a place of trust where the individual can experience safety and reliability.

²⁸ Von Meiss' article "Gravity in Architecture" (2000) explains that "beyond taste or fashion, there exists a lasting and common consensus for a perception of beauty linked to weight or weightlessness". [His] essay attempts to develop an understanding of different approaches to the issue of weight and weightlessness in architecture and civil engineering.

²⁹ Sandrock received his BArch degree from UP in 1952 and produced a prolific portfolio of late Modern Movement inspired buildings in Pretoria, many on the UP Campus. (<http://artefacts.co.za/main/Buildings/archframes.php?archid=1957>).

³⁰ Kruger completed his BArch degree at UP. He subsequently completed a master's degree in Urban Design and City Planning under Roelof Uytendogaardt at UCT in 1992. He currently practises in Cape Town.

³¹ *Entretiens sur l'architecture*, 1863–72.

³² Eaton was born in Durbanville in the Cape, trained at the University of the Witwatersrand, apprenticed with Gordon Leith and caught the eye of Herbert Baker who nominated him for membership of the Royal Institute of British Architects (RIBA). Eaton displayed a sensitivity for context and the materiality and detailing of African architecture, while the Cape vernacular greatly influenced his work (Harrop-Allin. 1975).

³³ House Nieuwenhuys received an award for new residential architecture from the Pretoria Institute of Architects in 2017 as well as SAIA Award of Merit in 2018.

³⁴ Adolf Loos (1870–1933), an Austrian architect, developed the *Raumplan*, or the space plan, which fostered a three-dimensional interconnectedness of space.

³⁵ This project altered an existing petrol station by inserting a steel and glass structure into the masonry walls.

³⁶ This project received a 2016 SAIA Commendation and a 2015 PIA Category Winner for Commercial or Brand-Related Architecture.

³⁷ Sir Herbert John Baker (1862–1946) was born in Kent in England and was articulated to various English practices. He came to South Africa in 1892 and completed alterations to, amongst others, Cecil John Rhodes's house (later Groote Schuur). He is most famous for the Union Buildings in Pretoria, completed for the Union of South Africa in 1910, in which he displayed a regionalist Classicist sensibility, particularly in the use of materials (Keath, 1994 and Greig, 1970).

³⁸ The University of Pretoria's new Future Africa campus will be the place where Africa's leading scientists and scholars from across the world and from a broad range of disciplines will come together to leverage the benefits of transdisciplinary research to address the grand challenges that face Africa and the world (<https://www.up.ac.za/future-africa>). ■



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AESTHETICS OF PLACE

PART 5 (FINAL)

Port Elizabeth architect John Rushmere reflects on space and aesthetics during the 2017 Milde McWilliams Lecture.



1



2

The Johnson House is interesting. Richard and Deborah ... they were bored with their house and their bedroom, so the key was the bedroom, but they lacked outdoor entertainment and she needed a study. Before I left the site, after that first visit, I told them there is only one solution: you've got to move your bedroom forward where you get a view of the sea and you know where you are and you can celebrate that. And if you put it up, you get the other thing you need, more entertainment space, and then the landing that takes you into the bedroom will become the study, so you get all three. Donald and I worked on this together, we collaborated, and you can see behind the palm tree is a white building, that I call the verb ... it connects the old with the new. There was no language to take from the existing so it was an instant decision ... we wanted to make it light, so we made a steel frame. By lifting it, we entered a completely different language and so it was a lovely journey. Richard and Deborah are to be commended >

1&2 Street elevation, Johnson House, Summerstrand, 2000.



for their tolerance of the many arguments and for always ending an argument by saying, “you are the architect so you can have your way”. You know what it does, that responsibility? You better damn well be right! Because if you’re arguing for it and then it’s wrong, you’ve got mud all over your face. He probably understood that, so he would argue, but he always left the final decision to Donald and myself.

These are little details, a little box window that you can see in the verb ... when I say the verb, it’s very quiet. Let’s call it John and Tree; so, John on the left and Tree on the right ... John photographs Tree ... John climbs Tree. It changes the relationship, but it is simply a connector between the new and the old. [Referring audience to slides and referring to small details through the house.] One important detail, I haven’t seen anywhere else: it’s permanent shuttering so you’ve got the porch down below that has a timber ceiling and on top of that is a screed of 70mm in which electrical cables and other things run, so it’s a composite floor. The owners got so excited about this, they said they wanted a whole house like that. I told them to just get on and live there for a while and then make up their mind later.

This is in the Alexandria forest, a beautiful forest. The clients, two farmers, wanted it to be close to the

sea. That meant they had to drive the full length of the property to deposit their belongings, which meant they would have experienced the whole thing before they were even shown their rooms. The forest was a wonderful opportunity and so they were persuaded ... Here you can see, quite clearly, the trees that have formed the entrance ... Again,

“THE BUILDINGS ARE JUST SO RELAXED; YOU FEEL, WHEN YOU GET THERE, THAT YOU JUST WANT TO KICK YOUR SHOES OFF AND MELT INTO A PARADISE.”

I worked with Donald on this. We walked through the forest and at one stage we never thought we would find a place where we could fit the building. We finally did and the amazing thing was, it ran north-south because that was the contours and we could do it, without fear. We had large windows facing west, which you just don’t do, but because of the forest the light was beautifully filtered so this building is full of the forest and full of light, which was the intention. The intention was to be in the forest, not in the building. On the roof, you can see the latte, young saplings, which can form a lovely ceiling. We poured a concrete mix on top of the latte, allowing it to come between them so you could wipe it off the bottom ... you could get the feeling of this raw ceiling. The idea was that if you have ever been in a forest when it’s raining, it is so beautiful because you hardly get any rain on you, just a few drops, but the sound of water hitting the leaves ... it’s real music. At other times, I know I have been in houses where you get the drumming of the rain on a tin roof and it’s wonderful, but here the forest won. It was hugely successful.

Those two trees were there and they are at the entrance and at the long kind of spine again, a wonderful ordering element, and it led to here ... There are some cantilevered steps taking you up onto that viewing platform because the waterhole was intended to be down below. This is one of the chalets, where again you will see the loosening, the fingers of the ceiling going out and linking into the forest ...

This is a quite recent building, again I worked with Donald on this. It’s my nephew’s. It’s built on the footings of a cute little Victorian house. Shame, the daughter of the previous owner burst into tears when she saw this house. It was nostalgia, I hope. There is the little bridge, the house faces down into Tin Pot Creek ... There is a long bottom room, the whole bottom space is a sort of concrete vault ... the gallery to the rooms and the great space, and on the right is a miniature house within the house, it’s got kitchen, dining, a little living, and even a little courtyard. The staircase takes you up into an office.

3 West elevation arrival view, Schoeman House, Walmer, Port Elizabeth, 2011. 4 View of north facing veranda, Schoeman House, Walmer, Port Elizabeth, 2011.



That's a building on the golf course [Little Walmer]. On this one, I worked with Bryan and Debbie. I was responsible for defining the code for Little Walmer and, because the developer insisted on very small erven, I suggested that we do away with side building lines and it was accepted. That is the way it works in Europe. It meant there was an opportunity to link buildings together, create courtyards, and make some really intriguing and beautiful spaces using other people's buildings; because if you back onto a side boundary it has to be without windows or doors and water cannot be deposited on your property, so it actually acts as a boundary wall, but also makes your property totally private. If he builds inside, on a building line, he can put windows in; then you're eyeballing each other over a silly wall with spaces that are useless, one-and-a-half metres wide. So, a lot of intelligence went into that and it was accepted, but when this building was built people were offended by the blank wall. They didn't have the imagination to realise you could build off that wall; you could plant against that wall; you could even make the wall disappear. It saddens me to hear that they've actually gone back to putting in those side boundary building reserves, one-and-a-half metres from the wall.

I didn't want the garages to face the street because it changes the scale. By shifting around you don't see the garage doors. It comes in across the triangle ... the entrance shifts off that access onto a new one. That's a bridge ... where this platform is, has now been enclosed by red painted shiplap, it's his little study like a little wasp's



nest clinging to the ceiling. This is the outdoor, which is the heart of the home ... staircase going down to the cellar ... the bridge goes to their private accommodation, bedroom, dressing room and bathroom suite. Again, the celebrated space; Professor Roger Fisher¹, a great servant of architecture, commented on the memory of Onion Row in there, and there possibly is.

This is the last ... Village Place, St. Francis Bay]. We put it last for a reason ... in my own view, it is probably the best thing I've done, but it had a rocky start. My late brother had bought this property on the canals and close to the sea. He wanted to know what he should do with it, so I went down and sat on the bank looking down on the canal and out to sea. I knew straight away that he couldn't just build a house there; it required something special. The site had almost doubled in size because Leighton Hulett had a problem with the canal there, they were digging into dolomite, and so they had to narrow the canal down. This meant the properties would increase in size quite considerably, so it was a very special property. He agreed and he got hold of Sir Michael Edwardes, of British Leyland fame, who had been looking for a foot in the door in St. Francis and he gladly came on board, and a friend, so there were four of us. I got busy, and I was very clever... I designed something complex and precious and actually completely wrong. But, it took me a while; we completed the design and we were at least a week or two into construction drawings. This began to bug me on the Friday and the Saturday. By Sunday I had made up my mind, so I went in on Monday morning and Dan de Wet, who was then my assistant — a wonderful guy who started his career with, of all people, Herbert McWilliams — was always there before anybody else and he was working already. I asked him to step back, I put my hands under the drawing, lifted it and crunched it up and threw it in the wastepaper basket and proceeded to destroy all the drawings. He just thought I'd gone bonkers. He said: "John, what are you doing?" I said: "I tell you what Dan, you go off to the beach. Be back here at two o'clock to >

5 View of entrance, Ntsomi Lodge, Alexander Forest, Eastern Cape, 2005. 6 View of interior of bedroom, Ntsomi Lodge, Alexander Forest, Eastern Cape, 2005. 7 View of garden-facing veranda and balconies, Rushmere House, Walmer, Port Elizabeth.



8

“MY GREAT FRIEND PIET LOUW IS ALWAYS TALKING ABOUT THE BACKGROUND BUILDING AND HOW WE’VE LOST THE ART OF THE BACKGROUND BUILDING. AS ARCHITECTS, WE COMPETE FOR ATTENTION WITH IMAGERY AND LANGUAGE.”

start the working drawings.” A picture had begun to form and I designed the building between about half-past eight and two o’clock and he started the working drawings immediately. We didn’t bother about other drawings, it just gelled in my mind. It had all that relaxed primitive simplicity. My great friend Piet Louw² is always talking about the background building and how we’ve lost the art of the background building. As architects, we compete for

attention with imagery and language and in this case, it is completely absent. The buildings are just so relaxed; you feel, when you get there, that you just want to kick your shoes off and melt into a paradise. Again, it is all about space, which is what I’ve been pumping through my talk this evening.

This is where you come through ... that little avenue. You see the street, formed by the buildings on either side ... that is where we gather, the little drinking hole. It happened several times that people would come in and we would be distributed all over the lawn — 27 one holiday — and they would stroll down to the wharf, admire the boats, come back and say, where do we get a drink here? I would get them a drink ... then, of course, they would ask “where do we pay?” and, laughingly, “it’s on the house”. After about 20 minutes they realise, it’s not a hotel. We had a lot of fun, amazing times here.

By the way, calling it Soweto is not derogatory at all. Despite whatever political squabbles there might be playing out in Soweto, it’s a place of great happiness and

fun and anybody who has ever visited Soweto can’t help but love Africa, coming away from it. What happened was I went down during construction ... that brown is the plaster I used to plaster the buildings and, of course, the buildings went up and the brown stayed and I went down for a site visit and this elderly gentleman came up and said: “Ah John, very interesting, so how does this place work?” So, I explained it to him and then he said, slyly, “you know what they’re calling it, don’t you? They’re calling it Soweto”. So, I said “well just thank them for the compliment”. Well that completely threw him and he went off muttering, he didn’t know what I meant by that. It has the quality of a little village, very primitive, one of my favourite buildings. Haig Beck, who was the editor of *International Architect*³, an Australian, saw it and he published it. He paid me an incredible compliment when he said he had seen many beautiful holiday homes on the South African coast and this was the best.

My three children all had their 21st birthdays here, all upwards of around 90 to 100 people, and once the party had ended, around three in the morning, most of them bedded down in various places, behind the fireplace, up the ladder, all the bedrooms had little lofts with ladders to get you up there. These are details that I concocted ... this is a sort of mixed tradition here because the plaster capping along the top of the roof normally would end in a parapet, but I used the Japanese/Filipino thing where the roofs extended over the walls and I had to stop the plaster; a lot of people just ignore it and allow the plaster to just die away. It became decorative, but it served a purpose. And the chimney is the open arms of generosity. That’s the staircase built out of sleepers.

Now, this is something I want to read. This is José Forjaz⁴, and this is my signing off. He is Portuguese, living in Mozambique, and this is what he wrote:

“The production of architecture is a labour of love. As in any creative activity, it involves a painful discovery of what exists or should exist within us as our own potential for discovery. It is also a labour of intellect, a fastidious alignment of arguments, of logical steps guided by an indispensable technical erudition drinking from a source called culture, all fueling or sustaining an elusive, but essential, tool called intuition. It is a lengthy and patient process in which we have a unique role to play as interpreters of many tunes, mediators of many contenders, diplomats of many interests, manipulators of many hopes and, more than anything, as dreamers of other people’s dreams.”

That’s it, thank you very much. I just want to say one thing: I always found it very difficult, it really is. I wouldn’t do it again. ■

FOOTNOTES PREPARED BY THE EDITOR

¹ Prof Roger Fisher, emeritus professor at the University of Pretoria.

² Piet Louw, architect and urban designer, Cape Town.

³ UIA — *International Architect*, Issue 8, Southern Africa. 1985.

⁴ José Forjaz, well-known architect in Maputo, Mozambique.

8 Ground Floor Plan of Village Place, St Francis Bay, 2003.



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THE ARCHITECTURE OF HENK DE BIE & VAN WIJNGAARDEN IN BLOEMFONTEIN OF THE 1960s: ROOTED IN PURPOSE, TIME AND PLACE



Fig.0.1
Henk de Bie (1922-1979).
Caricature by d'Ory.
(*Architect & Builder*,
October 1958: 67).

By: Emeritus Professor Walter Peters and Hein Raubenheimer



Fig.0.2
Wim van Wijngaarden
(b. 1922)
Caricature by d'Ory.
(*Architect & Builder*,
July 1964: 17).

ABSTRACT

The work of Dutch immigrant architect Henk de Bie, a metamorphosed modernism, is admired by architects and laypeople alike, yet remains unresearched. This paper aims to start the process by reviewing some examples of the work dating from the 1960s, most of which were carried out in partnership with compatriot Wim van Wijngaarden.

Unlike Johannesburg, Bloemfontein missed out on early modernism, but what arrived a few decades later, before the establishment of the local Department of Architecture, was the transfer and adaptation of modern European design directly from Holland. What is more, neither of the protagonists appear to have had prior experience in the realisation of buildings; that skill they acquired in Bloemfontein.

The research method adopted here involved sifting through extant drawings and what little available published material there was, inspecting different types of buildings and conducting interviews with associated persons and professional collaborators.

The study revealed an admirable command of a range of modernist design concepts resulting in compositions that respond well to their sites. The briefs were functional with appropriate formal solutions, while resulting in comfortable living spaces. The contention is that the practice succeeded in creating an architecture rooted in purpose, time and place, which in its maturity was highly inventive. It is submitted that the oeuvre warrants proper research and integration into the history of South African architecture.

Key words: spread of modernism in South Africa; transference of architectural ideas; Henk de Bie; Wim van Wijngaarden; Bloemfontein; passive design for human comfort.

INTRODUCTION

More than any other, modern architecture in Bloemfontein is owed to Dutch immigrant Henk de Bie (**Fig. 0.1**), together with his subsequent partner in practice, compatriot Wim van Wijngaarden (**Fig. 0.2**). By mid-20th century there were only 17 registered architects (Quine Lay, 1957:29) and there was no “seedbed” as the School of Architecture at Wits in Johannesburg (Herbert, 1975: 1), but the sources of influence in the Free State capital were transmuted directly from Holland.

As the Netherlands remained neutral during WWI, peace allowed for a “gradual maturation of pre-war ideas” (Curtis, 1996: 153–154). The influence of the early architecture of Frank Lloyd Wright can be seen particularly in Willem Dudok’s City Hall at Hilversum, 1928–1931, which, in turn, had a limited but distinct influence in South Africa, for example, and most consummately, in the Students’ Clubhouse, Natal Technical College, Durban, 1937–38 (*Architectural Review*, August 1940 and October 1944). But, the De Stijl movement and such masterworks of the International Style as Brinkman & Van de Vlugt’s Van Nelle tobacco factory, Rotterdam, 1926–1929, had little influence in South Africa.

De Bie commenced studies in construction engineering in 1940 at the Technical University in Delft. He also claims to have studied at Stuttgart (Personalities, 1958: 67), however, given the timing of WWII, this is improbable. But, regardless of educational details or knowledge of any apprentice or mentorship, the conception of many of his works can be attributed to the spirit of Frank Lloyd Wright, Le Corbusier, Gropius, Mies van der Rohe and Hugo Häring. With this came the use of passive energy for human comfort.

With a list of 628 projects, the legacy of Henk de Bie & Van Wijngaarden is considerable. Although the (Orange)

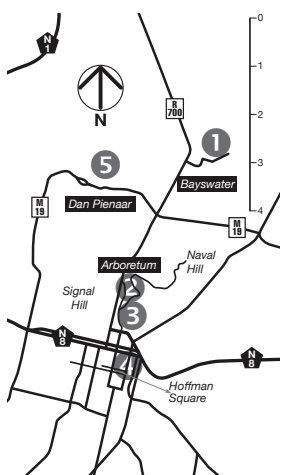


Fig.0.3
Map of part of north-east
Bloemfontein.
1. House De Bie
2. Ember el Mar
3. La Triomphe
4. Netherlands Bank
5. Lutheran church

Free State Provincial Institute of Architects was without a system of peer review, the work was acknowledged by the profession as witness Bloemfontein Club building, which won the first Award of Merit in the Free State under the current programme, introduced nationally in 1970 (*Architect & Builder*, April and May 1971).

The oeuvre is now some 60 years old and it is put forward as deserving of a topic for a higher degree by research. This article will restrict coverage to recording a few selected works dating from the 1960s, when both partners were in their 40s, the age at which most architects produce their mature works. The specific choice of work includes the house De Bie designed solely for his family; two apartment buildings, *Ember el Mar*, known to the principal author from occupancy, 2010–2016, and *La Triomphe* diagonally opposite; the central city Netherlands Bank building, and a place of worship visited over the already mentioned period, see map (Fig. 0.3). While other buildings by the practice were investigated, it is submitted that the selected examples suffice to prove the distinctiveness of a Henk de Bie & Van Wijngaarden building.

HENK DE BIE AND THE NETHERLANDS OF THE 1940s

Henk de Bie was born in The Hague on 31 January 1922. The year in which he commenced studies at Delft, 1940, was an auspicious year for the Netherlands. Despite proclaiming neutrality, in mid-May the country was invaded by Nazi Germany and it surrendered following the bombing of Rotterdam, only four days later. Consequently the Netherlands was placed under Nazi occupation, with the Dutch people suffering.

The liberation of the Netherlands, from late-1944 onward, played a vital role in the conclusion of WWII as the Allied forces closed in on Germany from all sides. It was probably then that De Bie's talent as a linguist was discovered, and he served as an interpreter and translator to the Allied forces based in Holland (Lane: 2012). But for the Netherlands of 1945, war was not yet over. Dutch troops were despatched to its colonies in south-east Asia, Java and Sumatra. Following intense international pressure, the colonies were incorporated as Indonesia in 1950.

In the context of the decade-long trauma of war, one can understand that in 1948, aged 26, Henk de Bie submitted to recruitment, probably by the South African government. He settled in Bloemfontein, in the centre of the country, at an altitude of 1 400 metres, and had to adjust to the semi-arid climate with hot summer days and cold, dry winters.

BLOEMFONTEIN OF THE 1950s AND '60s

South Africa emerged from WWII relatively unscathed. In fact the 1950s were times of economic prosperity. The Free State was abuzz when gold was discovered at Odendaalsrus in 1934, which led to the establishment of five new towns (Quine Lay, 1957: 29). The National Party, which unexpectedly came to power in 1948, wasted little time in founding the South African Coal, Oil & Gas Corporation Ltd (SASOL) in 1950 and the proclamation of the associated factory town, Sasolburg, in 1954. The province, with agriculture central to its economy, now added substantial mining and industry, and the capital, Bloemfontein, which also held the status

of the country's judicial capital, was undergoing rapid urbanisation and could now boast the seat of the fully independent University of the (Orange) Free State with Afrikaans as the language of instruction.

But, modern architecture was slow in arriving. Since Gordon Leith's 1930 competition-winning Bloemfontein city hall, completed 1936, little of note occurred. The GA Fichardt public library of 1957, two decades later, by City Architect JJ van Voorst¹ (Greig, 1971: 85), another Dutch immigrant architect, was one exception and the Civic theatre, 1958, by Manfred Hermer of Johannesburg another. The inaugural head of the newly established Department of Architecture of the University of the Free State, Professor Quine Lay, explained: "The Free State has the fewest architects, and on that account the least architecture of the Provinces." (Quine Lay, 1957: 32).

Pretoria, with which city Bloemfontein was closely aligned politically and architecturally, was awash with Brazilian modernism (Gerneke: 1998). But this wave only reached the Free State capital once graduates of Pretoria like JC de K Witthuhn & Maree established practice in Bloemfontein, effectively a decade later, and in 1965–1973, built the Brazilian-inspired OFS provincial administration (*Architect & Builder*, Jan 1974), today OR Tambo House.

This is the vacuous context for modern architecture within which De Bie settled in Bloemfontein in 1948. He took up employment in the practice of Chrysos Daneel (1914–1968)², which had relocated from Windhoek in the same year. De Bie was made a partner only four years later, in 1952, soon after successfully "qualifying" at Wits in 1951, probably with "special qualifying examination". But, two years on, in 1954, De Bie commenced practice for his own account (Personalities, 1958: 67).

He could do so because he easily fitted into Bloemfontein society. De Bie had charisma, was a "refined person" (Lans, 2015), played tennis and was an "accomplished pianist" who "moved in upper circles" (Lane, 2012), and we already know of his talent as a linguist. Many also associate him with driving a two-toned Borgward Isabella coupé, and being elected President of the provincial Institute of Architects in 1958 (*SA Architectural Record*, June 1958).

Bloemfontein boasted a sizeable Dutch community. Some had immigrated for economic considerations following the years of crisis in Europe after 1930, others like building contractor and developer Bernard Lans³, who will be referred to again, had realised the inevitability of WWII (Lans, 2015), and yet others like De Bie came in its aftermath. In this context, an exact contemporary of De Bie surfaced in 1955, but the possibility of any prior contact between the two could not be established.

Wim van Wijngaarden was born in Rotterdam and had commenced his studies in architecture in "Holland" before accepting the position as draughtsman in De Bie's office. He was also a tennis player and musician. On "qualifying" from the University of the Orange Free State in 1958, where the Department of Architecture had been established in 1954, Van Wijngaarden became a partner in 1960, which status became acknowledged in the practice designation as "Henk de Bie & Van Wijngaarden" (Personalities, 1964: 17). ➤

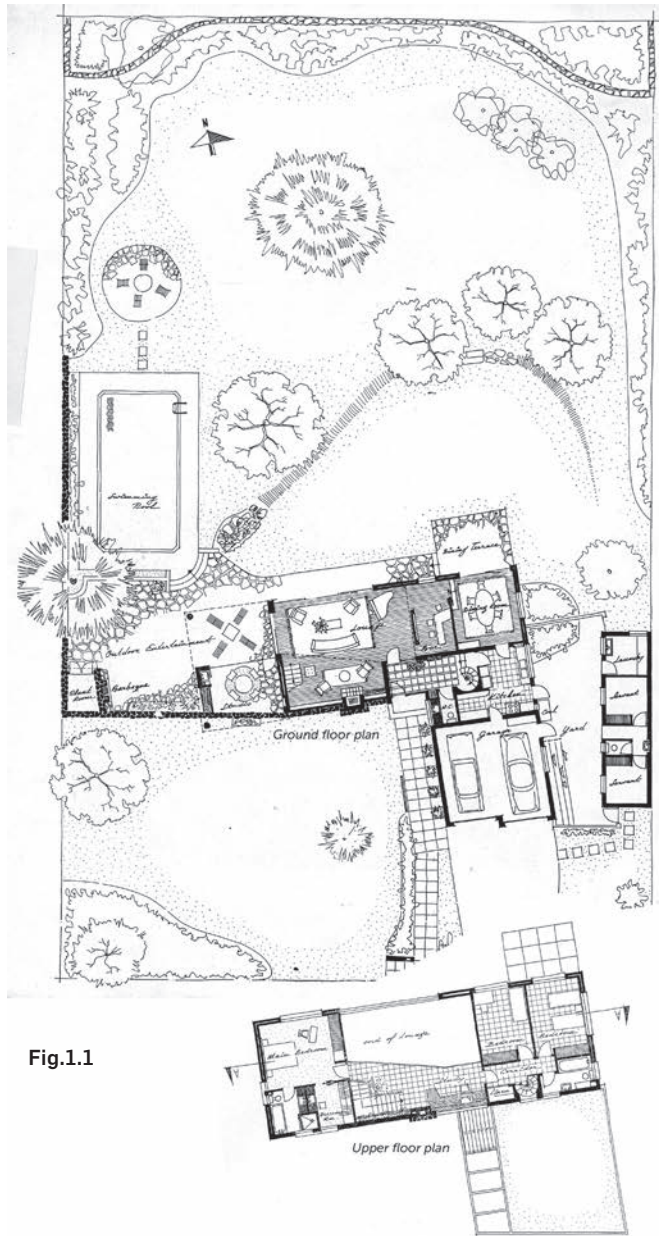


Fig.1.1



Fig.1.4

HOUSE DE BIE

39 La Motte Street, Bayswater, 1963.
(Henk de Bie Architect)

Approaching 39, bachelor De Bie married June Slead of Bloemfontein in 1961, and no time was wasted before house building. Clearly there had been significant commissions in the 1950s to allow De Bie to acquire the property and embark on such investment.

The selected site lies in Bayswater, a north-eastern suburb then on the outskirts of Bloemfontein and, interestingly, De Bie subsequently designed the houses of both abutting neighbours. The site is approached from the south and stretches to a koppie on the north. To maximise private outdoor space, the longitudinal building was placed up against the road frontage, which only the double garage encroaches. Visitors would enter on the left of the garages, along the centreline of the site, and domestic staff on the right along the eastern side boundary (Fig. 1.1)

The house faces precisely north, for which reason it is slightly misaligned from the cadastral layout of the site and, to continue this priority, it is double-storeyed "to give the beneficial north orientation to all living rooms and all the bedrooms", wrote De Bie⁴ (1963: 17). The former were located on the ground floor to best engage with the outdoors, which design was given "special attention", the latter on the upper floor.

Visitors enter through the tight foyer, which gives direct access either to the living space or to the kitchen at right, and by way of a spiral staircase to the children's bedrooms above. Different from most double-storey houses, the De Bie house is without a central or common staircase; the "main staircase" is integrated with the living space.

This space speaks of De Bie's gregarious nature and is defined by a variety of use areas both inside and out. On entering the lounge, the grand piano of the "accomplished pianist", is located within the double volume of the seating area, which opens to the north via large sliding doors, and to the veranda of single volume on the west, also via a sliding door. To the right of the piano and partially screened, lies the bar, an intimate space of single volume with only a framed window allowing a view to the garden, and at the extreme right and down a few stairs, the dining room in the corner, which opens widely to a terrace. On the southern, inner side of the living space, De Bie designed an inglenook around the fireplace, made intimate beneath the mezzanine of only 2.4m height, and particularly appropriate for Bloemfontein winters (Figs. 1.2 & 1.5).

Access to the mezzanine is via the suspended quarter-turn staircase with a landing in the outer corner of the inglenook, designed as "a light piece of furniture" with open construction of steel runners, timber treads and balustrading of steel rods at close centres (De Bie, 1963: 17). The parent's bedroom lies on the west, the children's bedrooms on the east, and these two lobes are joined by the mezzanine, designed as a study area yet overlooking the double volume seating area and piano, almost as a gallery, while providing an overview into the garden (Fig. 1.4).

The outdoor entertainment area is defined by the trapezoid between house and pool on the west, contained within a bounding wall of “koppie-stone”, which begins behind the inglenook and runs along the line of road frontage and the western boundary until the end of the pool. The western portion of the house integrates with this space, sitting as it does partially on *pilotis*, while defining the veranda and studio, which also serves as a change room for the pool. Unlike many pools of the time, this is rectangular in shape and designed less for leisure than for exercising.

De Bie scaled the exterior of the house using dark purple rustic face-bricks for the ground floor, which match the colour of the earth, and from which plane the upper of whitewashed fair-face brickwork with ruled joints is brought forward. Continuing the articulation, the flat roof constructed of Q-deck steel sheeting runs to a concealed perimeter gutter of reinforced concrete, recessed from the wall before neatly oversailing by about half-a-metre as a “flat lid” above the white walls. The abstract rendering of the exterior is contrasted with a somewhat unusual residential interior wherein the ribbed ceiling of the Q-deck steel is exposed as permanent shuttering, atop the plastered and painted walls (Fig. 1.4).

The inglenook is neither Dutch in origin nor an element to be found in the Free State vernacular, but it was a favourite element of the English Arts and Crafts architecture and of Frank Lloyd Wright’s Prairie houses, which De Bie here appropriately integrated in acknowledgement of the two very contrasting seasons of Bloemfontein. During daytime in winter, the lower sun angle would warm the habitable spaces, and at night, when the curtains were drawn, the family would gather around the hearth where the warmth was concentrated. In summer, the rays of the higher sun would not enter the interiors. The climate encourages an architecture opening to the outside, which De Bie achieved by effectively fusing the house with its garden setting.

However, the exterior has been modified. Pergolas like that over the dining terrace neatly project from both sides of the veranda and along the sliding doors of seating space. As De Bie was to learn, designing for the extremes of climate is advisory, but in Bloemfontein the effects of spring and autumn cannot be dismissed.

The compactness of the house and its cubic form might be practical embodiments of the principles of Gropius, but turning its back to the road and facing the privacy of the garden and the favourable orientation are conceptual derivations from the Tugendhat House of Mies van der Rohe in Brno, 1928–30. While drawing on precedents of masters, De Bie, the individualist, infused his own meanings for living in Bloemfontein. These include the emphasis on exact north orientation for passive thermal comfort, the double-volume seating space with piano to relax or entertain while opening to the exterior in summer or withdrawing around the inglenook in winter, and the freedom given both children and adults by the incorporation of both a spiral and main staircase. ➤



Fig.1.5

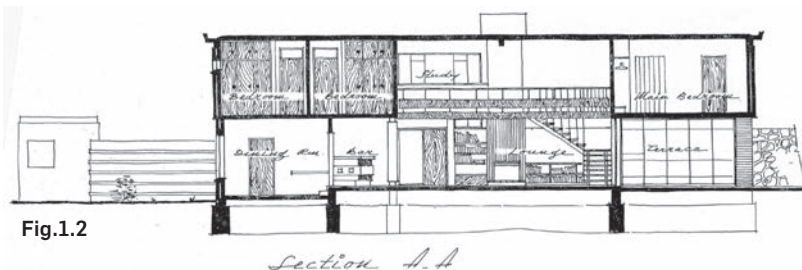


Fig.1.2



Fig.1.3

Fig. 1.1. Site and floor plans. Fig. 1.2. Hand-drawn section by De Bie through the habitable spaces. Cursive lettering was a characteristic of De Bie, which he also applied to the inscriptions of some of his buildings, for example. Wisteria, corner Aliwal and 1st Street, and Du Midi townhouses, Union Ave. Interestingly, the branding of Borgward vehicles also displayed oblique strokes and stems. Fig. 1.3. North elevation seen from the garden. Fig. 1.4. View from mezzanine to garden. Fig. 1.5. Ingleenook. (All images Architect & Builder, November 1963)



Fig.2.5

EMBER EL MAR⁵

18 Delville Drive, Arboretum, 1965.

One of Bloemfontein's most central suburbs, Arboretum, between Naval Hill and Signal Hill, was rapidly developing along Union Avenue (Fig. 2.1). This double carriageway of serpentine layout had been planned as a commemorative boulevard to mark the unification of South Africa in 1910 (Schoeman, 1980: 227) and linked Arthur Nathan swimming pool in the south before passing Hamilton Park on the west, both of 1907 (Schoeman, 1980: 182–3).

The sliver of land on the eastern side of Union Ave had been re-zoned for higher density residential development. Off it, forked the only road up Naval Hill, named Delville Drive after the 1916 WWI Battle of Delville Wood in France, and terminated in Franklin Game Reserve, established in 1930 (Schoeman, 1980: 259) as one of the very few urban wildlife reserves in the world. Positioned near the centre of Bloemfontein, this was prime land, ideal for fast urbanisation of whites of middle class wanting flats as their initial abode⁶.

Van Der Stel Hof, corner Union Ave and West Burger Street (*Architect & Builder*, Oct 1958), was the first building by De Bie's independent practice, and later came La Gratitude, both for developer BJ Lans. There now remained little available land along Union Ave, for which reason Lans sought to maximise left-over space on property he already owned. One contained an unusually large swimming pool set back from old, dense trees and a borehole on Union Ave, which left a prismatic area fronting Delville Drive available for development and effectively enforced a tower concept.

For this, De Bie had prepared a first proposal in 1957, and in May 1964, the practice put forward a revised plan of eight floors, very likely the first residential tower building in Bloemfontein with three two-bedroom flats per floor, a penthouse, and parking in a semi-basement. This proposal exploits the site while pursuing a functional plan, now ruthless in its attempt to capture the favourable



Fig.2.1



Fig. 2.2



Fig. 2.3

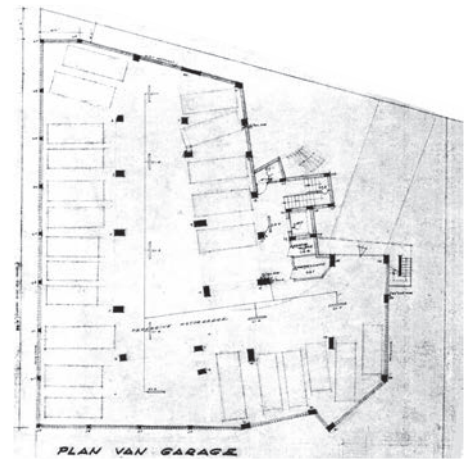


Fig. 2.4

orientation for as many habitable spaces as possible. In principle, the resulting concept is an obtuse, L-shaped plan around the core of vertical and horizontal circulation, but the planning geometry is complex indeed (Fig. 2.2).

The spine wall between the eastern and middle unit is north-aligned, not perpendicular to the north-eastern building line, but angled, and the reason most habitable spaces are skew, quadrilateral or trapezoidal. Beginning with the second bedroom of the middle unit, the spaces of the western unit “peel off” and “fan” to follow the path of the sun before terminating in the main bedroom, which faces west of north. Of all the habitable spaces to the typical floor, only a single bedroom is deprived of the favourable orientation, which is admirable indeed.

Circulation in the eastern flat is clockwise through the lounge space to an internal passage, which gives access to the bathroom and both bedrooms and anti-clockwise in the middle unit. However, for the definition of particular uses within the living areas, De Bie designed built-in space-dividers, not unusual in modern apartments in Europe, and these define the entrance and dining areas without breaking the continuity of the whole, while providing tenants with useful facilities of furniture and increased storage (Fig. 2.3).

All three units have yard spaces, which in the eastern and western units are accessed off the kitchen, and in the middle unit off the balcony, where it is labelled “drying room” for concealing clothes being dried. To promote drying in these three spaces, each was enclosed with a perforated wall of grille blocks, and this novel design was to characterise the exterior of multi-floor residential work by the practice (see *La Gratitude*, *La Triomphe*, *Wisteria*).

Interestingly, the balconies of *Ember el Mar* were not given balustrades as drawn, but were enclosed from inception with steel sash windows alternating with glass louvres atop the steel spandrel panels. This amendment in design has considerable thermal advantages in winter when at night the sliding doors are closed and the lounge space conserves the trapped warmth of the day, effectively behind double-glazing.

Instead of the design of the flats being subservient to the general structural grid of the building, as is the case in most buildings of this type, each unit of *Ember el Mar*

was designed on its own merits and the floor plan is the aggregate of the flats. This allowed De Bie to concentrate on the detail design of every space and its relationship with the next, without having to force any unit into a pre-ordained pattern. Thus the structural arrangement of columns is “erratic” and the shapes, sizes and directions are irregular on plan.

As a consequence, although stretched to coincide with the north-eastern boundary, the parking basement already impeded by the obtuse angle of the L, results in a tapering central aisle, which restricts the use to small cars and leaves a good few of its 24 bays for those with particular driving skills (Fig. 2.4). Judging by what is visible in the semi-basement, it appears that the building relies on a system of beams and hollow clay tiles, which must have expedited construction of the irregular floor plans and columns. The exterior is a reflection of the compact interior. The concrete frame is expressed and plastered, and infilled with panels of rustic-textured face-bricks, sometimes with high-level windows reaching to the soffits, and where not, with windows of steel composites, of full structural height or width, and the lowest panel is infilled with a diagonally folded steel spandrel plate (Fig. 2.5).

This is an expressionist architecture of which there are few examples in South Africa, and involves the literal design of every component while giving meaning to its geometry. The approach is reminiscent of a maxim of Hugo Häring (1882–1958), who advised that “one should not impose form from without, but rather allow it to grow from within, letting the essence of the building express itself” (cited in Jones, 1983: 61), a lesson which De Bie might have learnt at Delft.

Ember el Mar has always been popular with its tenants, some of whom have rented for decades; it is seldom that it is not fully occupied and is reasonably well maintained. >

Fig. 2.1. *Arboretum*. View westward from Naval Hill with Union Ave in the foreground, Hamilton Park in the middle ground and Signal Hill in the background. Delville Drive forks to the right, off Union Ave and leads to Franklin Game Reserve. From left: *Le Triomphe*, *Van Riebeeckhof* parallel with Delville Drive, Union Court and *Ember el Mar*. Fig. 2.2. Typical floor plan. Fig. 2.3. Space divider. Fig. 2.4. Semi-basement parking plan. Fig. 2.5. View from west with pool in foreground.



Fig.3.3

LE TRIOMPHE⁷

corner Delville Drive and Union Ave, Arboretum, 1966.

Le Triomphe is positioned on a triangulated site at the obtuse corner of Union Avenue and Delville Drive and the site falls south-westerly from the northernmost corner. The existing dwelling was sacrificed and the profuse established garden and some of the battered stone walls were incorporated in the redevelopment.

De Bie opted for a typical floor plan of north-facing flats arranged within a crescent, with bedrooms and lounges on the front and kitchens, bathrooms and dining rooms, which doubled as entrances, off the circumferential access passage on the south, and this composition was surmounted by a penthouse. However, such arrangement could only be considered if it was positioned on the widened portion of the site, which resulted in the visually commanding concave curve of the crescentic shape (Fig. 3.1).

The building's width was sufficient for two parking bays in tandem, which prompted access from either side, a situation eased with vehicular entrances from each street and for which, to accommodate, the building is lifted up on *pilotis*. This left the ground floor over to vehicles, which the occupants of the flats hardly register as they look into

the garden. But, as more parking spaces were needed, De Bie conceived a series of lock-up garages in the shape of a minor crescent, counter to the main building, which, conveniently, the second entrance served.

The five units of the six typical floors each take up a facet of the crescent and are thus trapezoidal or tapered (Fig. 3.2). Except for the fifth unit on the western end, which is two-bedroomed, all others are one-bedroomed, but mirrored. Like Ember el Mar, in the lounges the doors to the balconies slide open completely by being accommodated within cavity walls, outside of which are drying rooms 2m x 2m in area. In the case of the two-bedroom or western units, the drying rooms are contained within the recess of the bathrooms, accessible through the second bedroom.

While the exterior of Ember el Mar is a direct if pragmatic expression of the plans, the massing of Le Triomphe is precise and refined (Fig. 3.3). The side walls of the balconies, which project, daringly, about 1.5m from the crescent without additional beams or columns, are of face-brick, while the other two walls to the drying rooms are of grille blocks, and their right angled junction is precisely defined by way of a hollow core steel post. For the rest, steel window composites straddle the complete structural openings above built-in cupboards to sill height, and many widows are top hung to better facilitate ventilation.

Despite the potential limitation of one-bedroom flats for tenancies, Le Triomphe seldom has a vacancy. But, almost all drying rooms have been glazed internally and today serve as studies or store rooms.

Fig.3.2

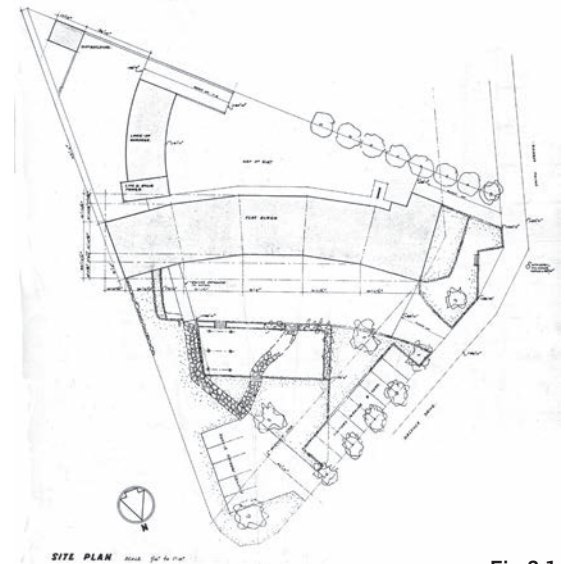
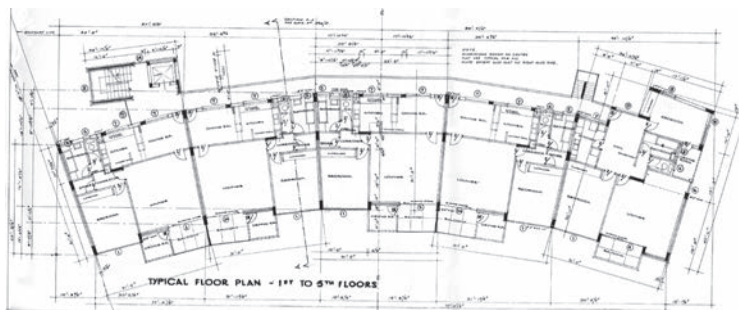


Fig.3.1

Fig. 3.1. Site plan. Fig. 3.2. Typical floor plan. Fig. 3.3. The concave front from which project the balconies with drying rooms enclosed by the grille block walls.

NETHERLANDS BANK OF SOUTH AFRICA

corner Charlotte Maxeke (Maitland) Street and East Burger Streets, 1964.

In 1951, this financial institution dating from 1888 commenced its independence from the Netherlands and was renamed Netherlands Bank of South Africa Limited before it became wholly South African-owned in 1969. During this transition, the bank invested in new buildings for which it chose foremost architects, Helmut Stauch for its Johannesburg building, 1962 (*Architect & Builder*, August 1962), and Norman Eaton for Durban, 1964 (*Architect & Builder*, January 1966). In this context, Henk de Bie & Van Wijngaarden came to redevelop the corner site, which the bank owned in central Bloemfontein, diagonally opposite the main post office on Hoffman Square.

Ever since the 14th century when Michelozzo built Medici's Palazzo in Florence, the business of banking was conducted on the ground floor, and later, these dedicated spaces in Great Britain developed into banking halls, often domed (Pevsner, 1976: 200-201). The finest modern versions thereof include the Manufacturers' Trust Company on the ground floor of a corner site in



Fig. 4.3

New York city, an International Style building in glass and aluminium, by SOM, 1953-4. Stauch followed that example and planned a generous banking hall as a "showcase" to entice passersby, while Eaton raised the same by a few steps to give it status. De Bie submitted that these facilities break the continuity of ground floor shopping and, consequently, located his hall on the first floor, but, to assure visible contact, it was reached directly by escalators, probably the first in Bloemfontein, and these were encased in glass and positioned precisely at the corner of the two streets.

Consistently, the ground floor was given over to retail space, which, to accommodate the escalators, cut across the corner (Fig. 4.1). The furthest therefrom were positioned in parallel on East Burger Street, the vehicular ramp to the parking basement and the access path to the lift and staircase core. The core neatly fitted into the cadastral projection in the depth of the site and served the four lettable office floors, which topped the development. The dedicated spaces occupied by the bank, comprising the double-volume hall and surrounding administrative spaces on three sides and on the mezzanine, were conceived as a podium on *pilotis*. In compliance with the city's planning regulations, this podium cantilevered on Charlotte Maxeke Street and over a pedestrian lane at the rear of the site (Fig. 4.2). Because of the deep beams needed to bridge the volume of the banking hall, fortuitously, the tower could be articulated from the podium (Fig. 4.3). >

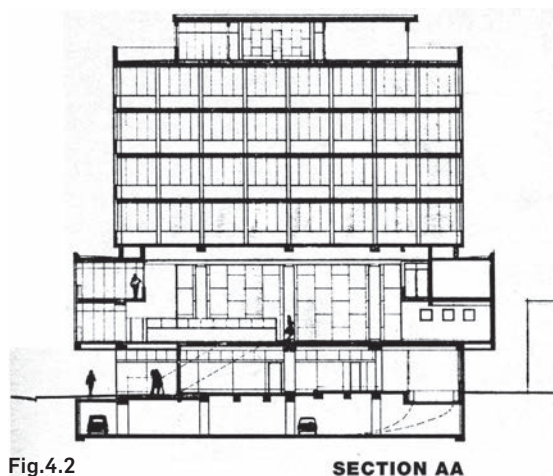


Fig. 4.2

SECTION AA

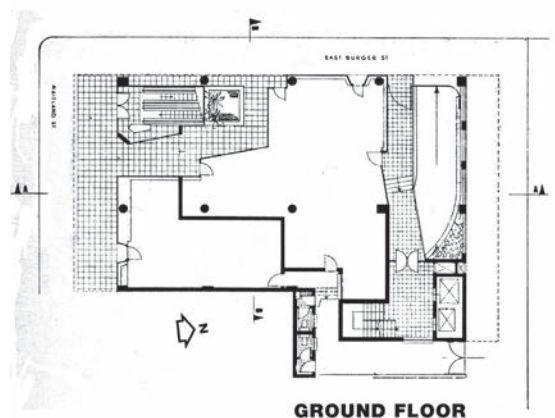


Fig. 4.1

GROUND FLOOR

Fig. 4.1. Shopfronts recessed from the escalators which mark the street corner. Fig. 4.2. The double-volume banking hall on the first floor. Fig. 4.3. West elevation on East Burger Street. (All images SA Architectural Record, August 1965)

Netherlands Bank Of South Africa – Continued

The requirements of flexible space for various tenancies saw the application of a framed structure of reinforced concrete in the tower, with flat slabs like Le Corbusier's *Do-mino* concept to facilitate demountable partitioning. This was probably the first application in Bloemfontein of both the structural technique and moveable walls for accommodating flexible tenancies, as too was possibly the incorporation of two air conditioning systems, ducted for the bank and individually controlled fan coil units in the rentable offices — fed by either chilled or hot water, depending on the season.

Externally the structural frame was suppressed. The solidity of the Parys granite cladding to the podium, quarried in the Free State, could be contrasted with the curtain walling in aluminium and glass to the tower. However, not to convey a “feeling of imprisonment” (De Bie, 1965: 20), the west elevation on East Burger Street was shielded from the sun by way of retractable aluminium louvres, which saw the use of openable sash windows for

adjustment. This fenestration design also adorns the large window composite of the double-volume banking hall, which as Greig advanced “... means that the real reason for the building is not lost sight of” (1971: 85). But, it was unshielded from the sun, relying on the buildings on the opposite side of the street and not inappropriate in the centre city setting.

While it might have been an enticing idea to offset the costs of locating the banking hall on the first floor with the rental gained from the retail use of the ground floor, shops are reliant on exposure to passersby, which when recessed in the depth of the floorplate is always problematic. This is possibly the reason that the lines of the shopfronts were brought forward to coincide with the street boundaries. The bank has long moved and disposed of the building, but the banking hall remains, deserted and literally high and dry, awaiting a new use. Persuasive as the elevation may have been, these premises want to be walked into directly as always they have.

CHURCH FOR ST PAULUS LUTHERAN CONGREGATION

2 Cachet Street, Dan Pienaar, 1968

The St Paulus congregation of Bloemfontein, established 1869, needed to relocate its base from the corner of Church and St. George's Streets in the central city to the suburbs. The original neogothic church, consecrated in 1875, was designed by Richard Wocke, a German architect who practised in the Free State during the time of the Boer Republic (1854–1902) and who is, perhaps, best associated

with the Tweetoringkerk in Bloemfontein, built 1878–1880 (Schoeman, 1980: 65, 68).

The congregation opted for a site on the southern end of the long axis of the ellipse of Hobhouse Square in Dan Pienaar suburb, abutting Arboretum, on the corner of Deale Road, an arterial, and Cachet Street, a feeder. The brief was for a community centre with the incorporation of the pews and some fixtures of the original church, which was sold and demolished.

De Bie, who did not belong to any particular faith, appears here to have sought to create a setting for worship and contemplation, primarily through the play of space and light, and with recourse to Wocke's design. De Bie's concept was based on a partially cloistered court, trapezoidal on plan. The hall was located on the eastern side boundary, while various facilities were placed on the south parallel with Deale Road, and, as the centre is terraced into the gently sloping site, the church on the west is elevated by a few steps (Fig. 5.1). In this position, the place of worship could provide a landmark on the corner of Hobhouse Square yet be integrated with the court. Vehicular access was from the furthest point on Cachet Street, which allowed for parking on the property parallel to either the church or the court.

Reusing the historical pews conditioned the oblong plan of the church, marked in sequence by the narthex, nave with single, central aisle and the sanctuary. The narthex provides access on one side to the staircase leading up to the gallery, and on the other to the sacristy, which also opens onto the court. In keeping with modern worship, the repurposed pulpit was lowered almost to the status of a lectern, and a large gothic

Fig.5.2





Fig.5.1



Fig.5.4



Fig.5.3

window with historical stained glass artistry, another legacy item, was incorporated in the sanctuary where good sidelight pours in.

Unlike the historic precedents, the roof is neither pitched nor ridged. Instead, it is expressive of the volume inside, dropping from the gallery, partially atop the narthex, across the nave to the sanctuary (Fig. 5.2). In reverse, this longitudinal cross-section responds precisely to the acoustical profile from altar and pulpit. The hipped roof over the sanctuary merges with the rake of the monopitch covering the width of the nave, before reaching its apex over the gallery where the ceiling is horizontal, while the exterior neatly transitions to a shallow pyramid with cross on pedestal.

It is said that De Bie wanted the building to be expressive of Lutheranism for which he sought inspiration from one of the best known hymns composed (1527–1529) by Martin Luther, the Protestant reformer, himself: “A mighty fortress is our God” (*Ein feste Burg ist unser Gott*) (Roodt, 1982). De Bie symbolised the analogy with the fortress in the scale and solidity of the entrance where, instead of a tower, the bell is incorporated within the bend of a sturdy flying buttress at high level, resulting in a striking profile to face Hobhouse Square (Fig. 5.3).

However, Le Corbusier’s pilgrimage chapel at Ronchamp, 1950–1954, had a powerful hold over the imagination for many church designs of the 1960s. The sculptural response of the church in Bloemfontein, and the roof oversail with canted fascia and bold gargoyles where monopitch and hip roofs meet, can surely be adduced as minor clues of Ronchamp. More literal are the pierced apertures within the externally ruled and fair-face finished painted walls at gallery level, which arrangements include wedges filled with coloured glass to distinguish the incorporation of Greek crosses, also like Ronchamp. But, the designs of the three pivot windows on the west, framed and pointed at both head and sill as honeycombs, are somewhat wilful but vernacular in feel and modern equivalents of the repurposed gothic window (Fig. 5.4).

The interior too is rustic, but with textured and painted walls, a clay quarry-tiled floor and exposed timber roof structure. The eastern side to the courtyard continues the geometry of the pointed windows on the west, but as

this is a continuum of window composites, the angles are accentuated in the springing line supported on piers, with exquisite custom-designed capitals of clay tiles (Fig. 5.5).

While the composites do provide for a good level of daylighting without the egress of any disturbing sun’s rays during the normal time of worship, unfortunately east orientation is no substitute for north, and the church is unpleasantly cold in winter and hot in summer. But, the composites are of transparent glazing, which visually enhances the rapport between nave and cloistered court and, as French doors are incorporated, these can be left ajar and the setting is little different from a worship service in the open.

The congregation has been shrinking over many years, but the sacred building De Bie conceived is perhaps more profound for worship generally than specific to the Lutheran denomination, and one reason the church is in demand by other faith communities, and especially for nuptials. But, another is surely its intimacy, as a virtual chapel among the neighbouring cathedrals, and the possibility of directly opening the nave to the privacy of the court. >

Fig.5.5



Fig. 5.1. The church is elevated from the partially cloistered court onto which it opens.

Fig. 5.2. The volume drops from gallery to sanctuary and the French doors at the right open onto the cloistered court. Fig. 5.3. Front to Hobhouse Square. Fig. 5.4. Elevation to west.

Fig. 5.5. Detail of a capital by potter Jannie van Wijngaarden, wife of the architect.

FINDINGS AND CONCLUSION

As stated at the beginning and has been demonstrated throughout, the conceptions of the works of Henk de Bie & Van Wijngaarden can be attributed to the spirit of Frank Lloyd Wright, Le Corbusier, Gropius, Mies van der Rohe and Hugo Häring, metamorphosed and adapted.

Far from being functionalists, the practice was concerned with the design of innovative spaces beyond utility. These were appropriate and invigorating for their purposes, mostly intrinsically or passively comfortable and made use of new technologies. This meant that the buildings were designed in such a way that the essential structuring dictated the form, that is, from the inside out. Thus the practice succeeded in creating inventive architecture, not always expressionist, but expressive and regionalist in pursuit, and provided the Free State capital with a limited but distinctive modernism in contrast to the distinguished official historical built environment.

Even if all the projects by Henk de Bie & Van Wijngaarden cannot claim unqualified success (for example, the elevated banking hall; comfort in sacral space), in the very disparate context of Bloemfontein to which modernist ideas were directly transferred, the wise use of site and the careful and well-considered logic in the layouts of the plans, are proof of honed professional skills, which, to boot, were acquired in their adopted city.

At the end of the decade of the 1960s, the practice expanded to the eastern Free State, whereupon Van Wijngaarden relocated to Bethlehem and opened a second office⁸. But, this move might not simply have been prompted by an anticipated work load; it was, perhaps, also to allow Van Wijngaarden some freedom for shaping his own professional identity alongside the flair and self-confidence which De Bie possessed. However, Van Wijngaarden's subsequent career path could not be traced and, unfortunately, little of De Bie's either. That is, aside from coverage elicited by the nationally awarded Bloemfontein Club building, already mentioned.

It is hoped that this study will serve as a prelude for a comprehensive examination of the oeuvre, allow for a reflective analysis with lessons for the current generation, and appropriately bed the contribution of these two talented immigrants within the history of modern architecture in South Africa. ■

ACKNOWLEDGEMENTS AND CREDITS

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1. Also accredited Bloemfontein City Engineers Dept assisted by NJT vd Walt & OJ v Schalkwyk (*Architect & Builder*, Oct 1959).
 2. The practice founded by Chrysostomo Savonarola Daneel (1914–1968), Chrysos S Daneel & Partners, was established in Windhoek in 1942, but relocated to Bloemfontein in 1948 (*Architect & Builder*, Nov 1957). Major works include the provincial hospital in Welkom, Agricultural Faculty (1962), Odeion School of Music and CR Swart building, now Equitas (1975), on the Bloemfontein campus of UFS, the last in association with Van der Walt & Fourie. Walter Smit (b. Amsterdam) joined Daneel in 1958 (*Architect & Builder*, Sept 1963) and in 1960, opened a branch in Pretoria, from which emerged Daneel, Smit & Viljoen.
 3. Bernard J Lans, Dutch immigrant of 1936, was a carpenter by training, employed by SA Railways, Bloemfontein, as a coachbuilder. Being an alien, he lost his job during WWII, but jumped train en route to Cape Town for repatriation. While a fugitive he met his wife, a Miss Du Toit of Fauresmith district. After the war, Lans emerged as a building contractor in Bloemfontein, BJ Lans (Pty) Ltd. Among others, he built the Agricultural Faculty at UFS. He also assumed the role of developer and, with the proceeds from farms his wife had inherited, acquired a large portion of land on Union Ave for building apartment blocks. However, trusting his bookkeeper cost him La Gratitude, Ember el Mar and Union Court, leaving only Le Triomphe and Van Riebeeckhof. Information by his son, Dr Bernard Lans, 2015. See also: Stop van myne. *Volksblad*, 23 Aug 1958.
 4. According to Nicholas Clarke of TU Delft, design with solar orientation can be attributed to De Bie's training in Delft. In 1934, to investigate the influence of sunlight on human health and its application in planning and housing *The Zonne-commissie*, was incorporated into *Nederlandse Instituut voor Volkshuisvesting en Stedenbouw*, located within the Faculty of Bouwkunde, at Delft. Clarke, N. (2019) Re: more. E-mail to Walter Peters, 8 Jan.
 5. Derived from the names of the four children of Bernard Lans: Emily, Bernard, Elizabeth (Elbie) and Marcel.
 6. While in the employ of Daneel up until building his own house, De Bie resided in unit 7 Van Riebeeckhof (Lans, 2015).
 7. In recognition of his success in business, Lans chose the name Le Triomphe.
 8. Paul Kotze, editor of this journal, fondly recalls working in the Bethlehem office as a student in 1972. Van Wijngaarden lived in Clarens where his wife Jannie continued her career as a potter, but their subsequent paths recede into obscurity.

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THE BISHOP'S LADY, THE INSPIRATION BEHIND A 30-YEAR-OLD LECTURE SERIES

This year, the Sophia Gray Memorial Lecture Series celebrated its 30th anniversary with Laureate Emeritus Professor 'Ora Joubert.

By: Mira Fassler Kamstra

Who was Sophia Gray? Some think she is Paul Kotze's muse, others suspect she is Jan Ras' mistress, while Thelma Gutsche describes her as the "Bishop's Lady".

Sophia Gray was the wife of Bishop Robert Gray, head of the Anglican Church in South Africa, who, though not formally trained as an architect, through her love of English county churches developed a genre that came to epitomise the Anglican Church in South Africa.

She is now, due to the inspiration of Professor Paul Kotze, the "patron saint" of the annual memorial lecture held by the Department of Architecture of the University of the Free State (UFS).

Asked what inspired him, Kotze replies: "Pure Terror! Pure terror at the idea of teaching students architecture in a small city in the middle of the country, isolated from a wider range of good architecture. I then thought why not bring the architects and their work to the students in a lecture series?"

During its conceptualisation, Kotze knew beforehand from reading Gutsche's book as well as the book by Karel Schoeman on the history of Bloemfontein that Gray was the architect of the chapel that later became the Anglican Cathedral. Although the chapel never proceeded beyond its foundations, Kotze decided to initiate and name the series after her. Leading South African-born architects, both in and outside of the country, were to be invited to present their work with an accompanying exhibition in the series.

CAPABLE, CREATIVE AND COMMEMORATED

To refresh my memory of both Sophia and Robert Gray and the challenges of their times, I reread Thelma Gutsche's book *The Bishop's Lady*. The story of two people completely intertwined/interdependent and at one in their purpose of securing the Anglican Church in the Cape between 1848 and 1871 and expanding its influence into a rough, inaccessible and undeveloped hinterland is gripping. The administrative complexities of establishing an ecumenical structure compatible with that in England, the issues of sovereignty and independence and the endless challenges of fundraising, mainly through overseas contributions, not to mention the exhaustion of their own private wealth in supporting themselves and the many visitors to Bishops Court are described in detail.

Sophia, an intrepid horsewoman, braved rough mountain passes and extreme heat and cold to accompany her husband on some of his lengthy visitations to settlements. Her sketchbooks always to hand, Sophia sketched the terrain wherever they went and designed >

HER SKETCHBOOKS ALWAYS TO HAND, SOPHIA SKETCHED THE TERRAIN WHEREVER THEY WENT AND DESIGNED NEW CHURCHES AND OTHER BUILDINGS, ADAPTING THEM TO THEIR SITES AND THE AVAILABLE MATERIALS AND SKILLS

new churches and other buildings, adapting them to their sites and the available materials and skills, as they went along. It is difficult to imagine riding and walking up mountain passes, swimming flooded rivers on horseback or negotiating the Great Karoo by cart with reluctant horses while running out of water.

It is even more difficult to imagine the required endless writing and copying in legible longhand of every document and letter. In addition, the bookkeeping and accounting, the organisation of the of Bishop's Court estate, the household with their five children and many house guests, and eventually the beginning of the school, later moved to Zonnebloem, all fell within Sophia's domain.

She also accompanied her husband on several lengthy sea voyages and visits to England to address ecumenical and administrative matters and to fundraise. Possessed of formidable energy and endurance herself, she often had to nurse and minister to her less robust and overstretched husband.

Sophia Gray died on 27 April 1871 aged 57. Robert Gray followed her 16 months later. They are both buried and commemorated at St Saviour's Church Claremont. Sophia Gray is also celebrated in the stained-glass window to the left of the high altar of St George's Cathedral in Cape Town.

She left a vast number of watercolour sketches of the terrain they traversed, innumerable delicate architectural drawings, about 57 built churches a detailed record of her daily life, all preserved at the William Cullum Library at the University of the Witwatersrand.

Gutsche concludes: "Sophia's hand may more truly be traced not only in the relics of her numerous buildings, but in the ecclesiastical structure which she helped to create" (p 215 *The Bishop's Lady*). Certainly, a more suitable person for the naming of the lecture series would be hard to find.

With the creativity of Jan Ras, ably assisted by Kobus du Preez, the memorial lecture became a theatrical occasion where, in the early days before its success required larger, but less personal venues, the speaker and the venue were closely matched.

THE LAUREATE EXPERIENCE

In 1989, I had the honour of being invited to be the first Laureate.

After a night of very little sleep and a hair-raising drive from Johannesburg, I reached Bloemfontein with little time to change into the midnight blue taffeta outfit (designed by Hendrik Heyns, a UFS graduate working in our office). Stage managed by Jan Ras' countdown to the second, I was piped to the door of the Ou Presidensie by the Scottish pipe

band, presented with a red rose and escorted into the ballroom. All went well until I turned around at the last slide and was shocked to realise that in being moved from slide tray to carousel all the slides were back to front! Fortunately, the audience of about forty people seemed to be none the wiser!

How different was the next occasion of Laureate Roelof Uytenbogaardt! The Queen's Fort provided the venue where, on a bitterly cold night, we wound our way up the path lit by flickering oil lamps to the mournful sound of a lone piper standing at the entrance, a marvelous prelude to the dramatic magic of Roelof's talk, which began with a discourse on Sophia Gray's Holy Trinity Church at Belvedere. His unframed hand-drawn sketches were stuck to the foyer walls with Prestik — a far cry from the elaborate exhibitions of today!

I have attended 27 of the 30 lectures so far and recall a few here.

Gabriel Fagan's was set in the oldest building on campus, Pancho Guedes' in Gordon Leith's beautiful City Hall, Glen Gallagher's in the stately Third Raadsaal. Jack Barnett's love of bricks was celebrated in the smouldering brickfields. Willie Meyer's on another bitterly cold night at the Boyden Observatory. Bannie Britz's at the UFS Centenary Complex and, more recently, Janina Masojada's and Andrew Makin's in the brick vaulted reservoir at Oliewenhuis. Anton Roodt's two-chair setting for an informal discussion was on the Civic Theatre stage and Jeremy Rose's and Phil Mashabane's in the austere Klip Kerk.

Through the years, erudite South African émigrés Jack Diamond, Hentie Louw, Peter Buchanan, Adele Naude de Sousa Santos, Stanley Saitowitz and Stan Field have added lustre to the series. The early exhibitions of Gawie Fagan, Mira Fassler Kamstra, Roelof Uytenbogaardt, Glen Gallagher, Revel Fox and Jo Noero were displayed in the National Gallery in Cape Town and in several other venues.

In 1997, the exhibition venue changed to the Oliewenhuis Gallery where longer viewing is possible.

The series, accompanied by increasingly extensive exhibitions and further lectures attended by growing numbers of students and professionals from across the country, has gone from strength to strength. The larger world of South African and international architecture has most certainly been brought home to the Free State students.

I would like to congratulate the architecture department of the university for its vision, tenacity and organisational skills in fulfilling and exceeding its original intentions and express my appreciation for having been invited to be the first Sophia Gray Laureate.

Further, I would like to acknowledge and thank my previous partner Marcus Holmes for his unstinting support and assistance in its realization. ■

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